ST. JOSEPH'S COLLEGE

MAGAZINE

TRICHINOPOLY

MARCH 1956

NOV 1959

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St. Ignatius of Loyola, Founder of the Jesuits
1491 — 1556

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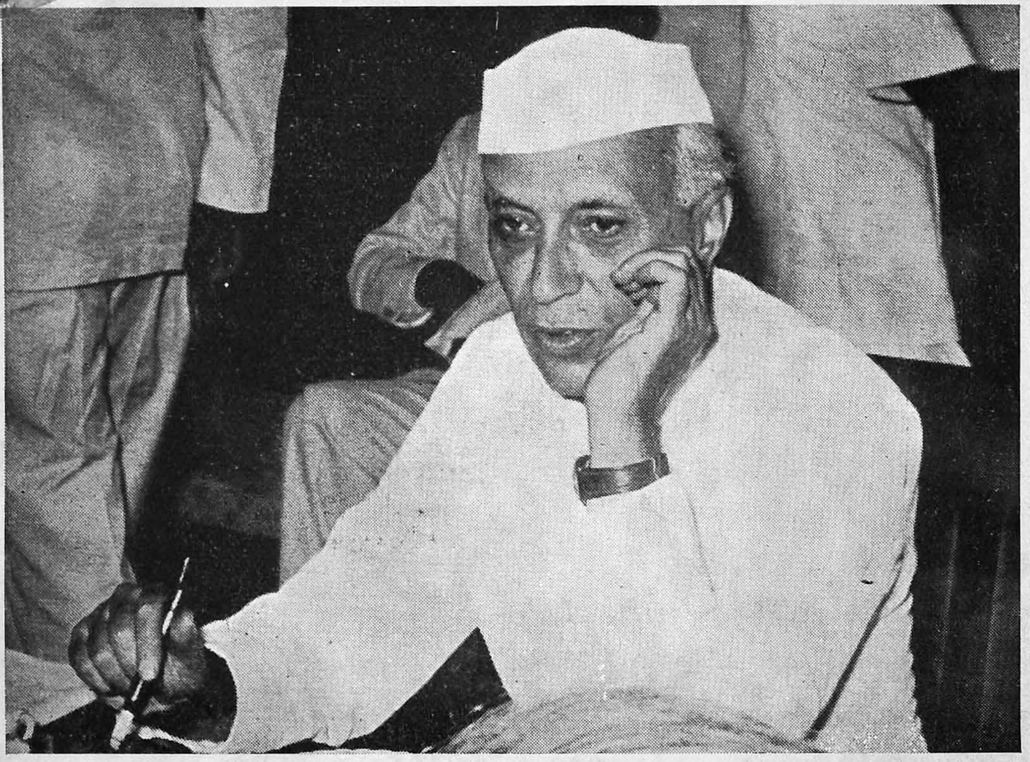
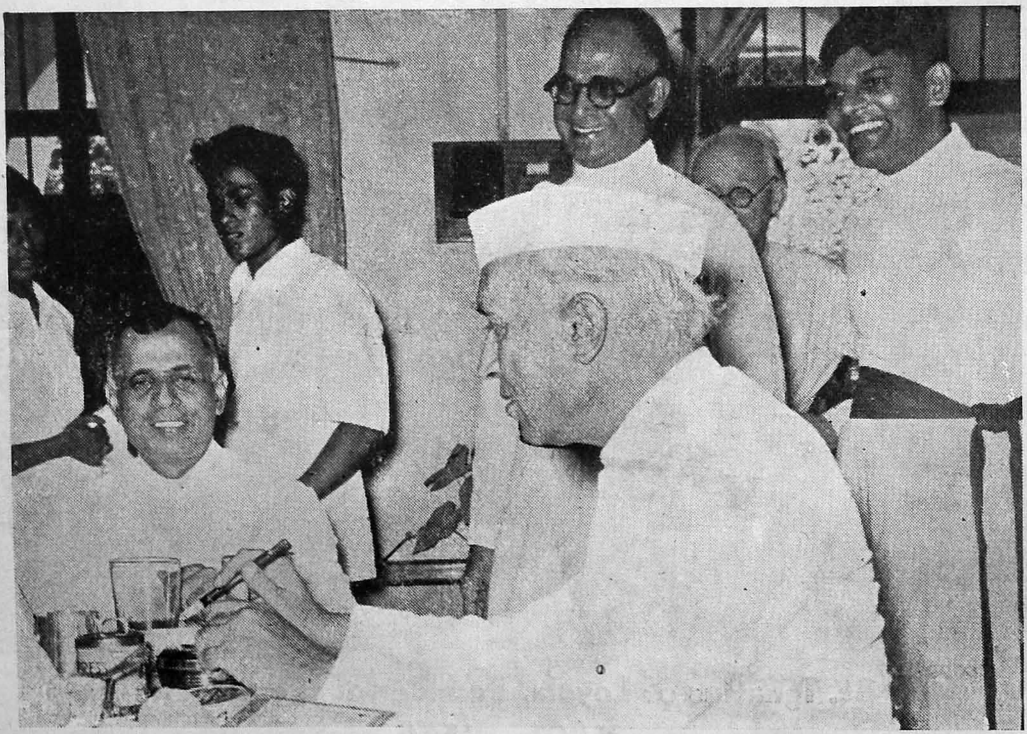
NEHRU AT ST. JOSEPH'S



In the Fathers' Parlour



With the Fathers

EDITORIAL

The Ignatian Year

1956 is the quatercentenary of the death of St. Ignatius of Loyola, founder of the Jesuit Order. The story of how this Spanish grandee of Renaissance Europe was converted from a worldly knight wounded in a fight for his earthly King into a spiritual knight living on alms and serving the most abandoned of mankind in the lanes and hospitals of Italy for the greater glory of the King of Kings, is common knowledge. But it is not so well known even to the students of Jesuit colleges in India that the Order started by St. Ignatius has been in our country since 1542 when St. Francis Xavier, one of his first companions, landed in Goa and there opened the first Jesuit college for outsiders (i.e. non-Jesuit students) in the whole world.

To the members of the Jesuit family now numbering over 30,000 this year is an occasion for thanksgiving and self-examination. To those thousands who have been students in Jesuit schools or colleges in India and are everywhere distinguished, not indeed by their exalted positions or fabulous incomes, but by their hard work and honest devotion to duty and by what is invariably but often unintelligently known as discipline, it may be perhaps useful to know the secret of this organisation, the personality of its Founder, the spirit of its many-sided activity, the source of its vitality in spite of uninterrupted persecution. It is for these that a series of articles has been planned from January to December 1956, one each month, to appear in one of our weekly papers, giving some idea of the work done by Jesuits in various fields, especially in our own country. It is to be hoped that at the end of the Ignatian year our students will know more about their teachers than the Oxford Dictionary.

Nehru at St. Joseph's

In one of his flashes of insight into things Indian Mr. Chester Bowles, former U. S. Ambassador in India, has said that Mr. Nehru from time to time likes to 'bathe in the crowds' from which he emerges refreshed, encouraged, and strengthened in his herculean task of lifting, singlehanded, and moving this heavy sprawling, heterogeneous nation. On October 3, 1955, it was the turn of the Tamil crowds; and though his visit was primarily to Trichy, the place finally chosen for the meeting was our Mahé Ground, and the monumental dais of brick and mortar was built less than 20 yards from the Assembly Hall of New Hostel, in the shade of its stately blocks.

Neither the day nor the hour was favourable to the audience: it was one of those sultry, damp days which. herald what is euphemistically called the monsoon in this part of India; and the time for the lecture in the open sun was 11-45 a.m. Between a morning speech at Salem and an afternoon one at Tanjore the Trichy crowds had to make the best of midday. And yet they came in their thousands, with their infants on their shoulders and food in their cloth bundles, to have a *darshan* of India's darling. He came at about 11-20, tired and jaded, and went straight to the parlour of the Fathers' House where a wash and a cool drink picked him up sufficiently for a half-hour's speech to the lakh of people gathered in the Mahé Ground and in the playground stretching from New Hostel to National College. He must have been touched by the sight of those patient, silent people, among whom in spite of a hundred and fifty water-taps about the same number of women and children fainted with heat and thirst, so unlike the rough, noisy audiences he often has in the north. The meeting was as silent as a class where only the teacher's voice is heard. Perhaps there was not much attention, for as soon as they had *seen* him, most of his hearers rose silently to return home. But this did not disappoint our Prime Minister, for he too had come chiefly to see his people of Tamil Nad and

feel how much they trusted him and expected from him. He had bathed, not in the sacred river, but in his beloved crowd.

Mr. Irudayaraj

The death of Mr. A. Irudayaraj on November 5, 1955, at the age of only 36 has left a void in the College and in the town which is not likely to be filled in the foreseeable future.

He did much for this unkempt old town, whose renaming from Trichinopoly to Tiruchirapalli tickled the humour of distant *Punch*. We shall not be far from the truth in saying that he shortened his life by taking Trichy municipal politics too seriously. Like all sincere workers in the political world, he had more disappointments than joys. But he gave an example which should not be forgotten by those who come after him. More than being a Councillor and an active 'social worker' (which may mean much or little in India today) is the fact that being a Vellala himself in a 'historic' place like Trichinopoly, he started the first cooperative society of cobblers and talked, not *to* them from a high platform, but *with* them on the dusty roadside. This certainly is service which is worth much more than the lectures he gave the Social Service Institute of our College as a member of its Staff.

How great the loss of Mr. Irudayaraj is to the College was brought home to those who attended his funeral. It was not just the loss of a Lecturer, however clear or impressive, that all those hundreds of students who flocked to Varaganeri that day mourned. They had lost a rare combination of a teacher who commanded respect and deserved love—whose classes were orderly and restrained and at the same time lively and familiar. It is easy to have either the one or the other: very difficult to have both. Mr. Irudayaraj had a funeral procession which has not been equalled, Non-Catholic students vying with his fellow-Catholics in silent admiration and grief. What greater reward can a teacher have? He is now beyond the reach of our admi-

ration or grief, but it does *us* good to have had and shown it. *Guru-bhakti* is not yet dead at St. Joseph's.

Impending Changes

After a year of great activity for all the University 'bodies —Syndicate, Senate, Academic Council, Boards of Studies, Faculties, Committees—the stage is ready for the new set-up in Madras. Those who become 'eligible' this year and think themselves fit for university studies will have first to spend a year in what has been called a pre-university class where they will do six subjects —English, a second language, two science subjects, and two arts subjects—and qualify for entrance to the three-year course leading to the first degree. It is expected that this second filtering or screening will lead to a smaller and more suitable number coming up to the university than has been doing so in recent years. The Government is also thinking of declaring university degrees no longer necessary or even useful for any but the highest posts in its many services. If the difficult but inevitable problem of 'selection' for university studies, which is exercising the minds of psychologists and educationists all over the world, could be satisfactorily and non-violently solved in our country, our universities would be worthy of their name, discipline would improve, colossal waste of human capital would be prevented, and the whole educational system would be toned up.

Any change in a system that has been in vogue for close on a century is fraught with difficulties theoretical no less than practical. The fear of the unknown is part of the instinct of self-preservation. While we cannot pretend to be exempt from this fear, we have every reason to face up to the future with confidence. For the Society of Jesus, which runs this College, has more than four centuries of educational experience in almost every country in the world; and St. Joseph's, which is older than Madras University, still feels it has a contribution to make to the success of the new system.

॥ दयापात्रम् ॥

A. SUBRAHMANYAM

हतविप्लवनित्यकृत्यकं हतशास्त्रोदितसम्प्रदायकः ।
मतिभक्तिविरक्तिशालिनं मतिहीनो विषयेषु लम्पटः ॥

कृतदेवसमर्हणं शुचिं क्षुधनायाजनितश्रमोऽशुचिः ।
कृतमन्त्रजपं गुरूत्तमं समभीयाय हि कश्चनाध्वगः ॥

धृतचीवरमध्वधूसरं ह्यशनायाध्वपरिश्रमान्वितम् ।
स निशाम्य गुरुः ससम्भ्रमं पथिकं प्रत्युदियाय दूरतः ॥

प्रचलत्तनुयष्टिमध्वगं स्वकरेणादरतोऽभिगृह्य च ।
शनकैः स्वगृहं नयन्नमुं समुपावेश्य शुभासनेऽब्रवीत् ॥

अयि मा स्म शुचस्सखे भवान् स्वगृहं ह्येतदुपागमत् किल ।
फलमेतदिदं पयो मधु प्रतिगृह्णीष्व मया समर्पितम् ॥

श्रमहारिवचोभिरीदृशैरपनीयास्य परिश्रमं शनैः ।
रुचिरं रसवद्धितं शुचि प्रगुणं प्राज्यमदात्स ओदनम् ॥

अभिवीक्ष्य हि भोज्यसंचयं जठरज्योतिषि होमकौतुकात् ।
स बुभुक्षित एनसां निधिः सहसा प्रारभतात्तुमोदनम् ॥

पशुवद्धृतकुक्षिपूरणप्रवणं वीक्ष्य तमध्वगं गुरुः ।
कृतमस्य च धर्मदूषणं मनसालोच्य भृशं चुकोप ह ॥

परिहर्तुमिवेच्छया च तत्सहवासं निरवासयद्गृहात् ॥
निजगाद च सोऽध्वगं गुरुः सुदुराचारविलोकनाक्षमः ।

हरये न समर्पितं हविर्मनसाऽस्मारि न चेश्वरस्त्वया ॥
अत एव किलाघभोजिना स्फुटमाविष्क्रियते कृतघ्नता ॥

पथिकस्तु बुभुक्षितोऽपि सन्मुहुरात्मानमभाग्यभाजनम् ।
इति वाक्च्छरविद्धमानसो ह्यनुशोचन्प्रजगाम कुत्रचित् ॥

अपि सप्तवलाहकास्तदा ववृषुर्वातशतह्रदा युताः ।
धरणी च चचाल नौर्यथा ह्यभिभूता जलधौ च वात्यया ॥

गुरुरेवमचिन्तयत्तदाऽतत कोऽप्यत्र हि देवहेलनम् ।
एलयारभटीनटः शिवो ननु लोकाभ्यवहारसादरः ॥

उदभूदथ देशिकाग्रतो महसामक्षिविघातिनां चयः ।
यमुदीक्ष्य बिभाय देशिको मम कोऽधर्म इति प्रतर्कयन् ॥

अथ मेघगभीरया गिरा करुणापूरविषज्जमानया ।
स गुरोर्हृदयं विदारयन् समवोचन्महसां चयश्च तम् ॥

अहमस्म्यविशेषदैवतं दनुजानामसुरद्रुहामपि ।
कृतमेभिरसाधु साधु वा न तवास्त्यत्र विचारणार्हता ॥

क्षुधितः किल भोजने विधौ प्रथमं पात्रमिति व्यवस्थितम् ।
तदतिक्रमितुं न कोऽप्यलं सुकृतं वास्त्वथवास्य दुष्कृतम् ॥

परदुःखनिवारणोद्यमं परमं धर्ममुदाहरन्ति ते ।
उदरंभरिरस्त्वसौ परं न हि तस्यार्तिरपाकृता त्वया ॥

अहमस्य महीतले चिरादविघातां गतिमादराददाम् ।
क्षणिका च तवालये त्वये न विसोढाऽस्य वितर्दिकासिका ॥

अथ कस्य दयिष्यते भवान् यदि पापाचरितं त्वमुज्झसे ।
मतिहीनतया भृशातुरा अनुशोच्या ननु साधुभिस्सदा ॥

कनकाचलमाश्रितः खगो ननु नीलोऽपि सुवर्णतामियात् ।
अघवानपि साधुसंश्रयात् परिपूयेत न तं परित्यजेः ॥

न कदापि पिधत्स्व तद् गृहं प्रविशन्त्वेतदधार्मिका अपि ।
अघवानपि पूयते यथा प्रयतस्त्वैवममुं न दण्डयेः ॥

दशकण्ठशिरःपरम्परालवने बाष्पनिरुद्धमक्षि मे ।
प्रतिजन्म कृतापराधकं शिशुपालं स्वपदं तथाऽनयम् ॥

भगवान् करुणापयोनिधिः पतितानां परमो हि पावनः ।
उपदिश्य गुरुं दयाह्वयं गुणमित्थं च ततस्तिरोदधे ॥

Albert Einstein

By E. S. RAJAGOPAL, V B.Sc. Hons.

A genius, it is said, transcends his age—also, he is usually recognised only centuries later. He is so far above the common populace that they lose sight of him altogether. Copernicus, the first to show that the sun and not the earth is the centre of the solar system, Gregor Mendel, the priest who discovered the laws of heredity and genetics—and many others had nothing but ignominy in their lifetime. But two geniuses were recognised in their own lifetime: one was Newton, the other Einstein.

Einstein has become a legend in his own time. Physicists and metaphysicists, cosmologists and chemists, astro-physicists and mathematicians, and even political thinkers, all have their own Einsteins—the landmark in the evolution of their fields of thinking. To the common man, he is a supramundane omniscience—his photographs showing a wizened face with a halo of grey hair contributing considerable weight to this belief.

✣ ✣ ✣ ✣

Albert Einstein was born in the town of Ulm, Germany, on 14 March, 1879. His parents were Jews and his father was an electrician who later became a mechanic to augment his financial position. His childhood showed no sign of his future brilliance, and in his school Einstein was so backward that none of his tutors—who pride themselves on being the teachers of famous men—remembered having taught him. At 17, he entered the Zurich Polytechnic after failing the previous year in the entrance examination.

After this none-too-good formal schooling, he became a clerk in the Patents Office at Berne. The humble clerk used to go home early and work—of all the things on earth, the people said—mathematics. It was during these three years at Berne (1902–05) that Albert conceived the ideas which were to alter the very basis of Physics.

Out came in 1905, as a result of his patient labour, three papers published in the *Annalen der Physik,* the first one on the Quantum Theory of light, the second—'On the Electrodynamics of moving bodies'—on Relativity, and the third on the Fluctuation Theory of Brownian Movement. Any one of these three would have earned for him a secure place in the annals of Physics. So important were his results that recognition was immediate. In 1907, he was made a lecturer in the Berne University; but his lectures were so bad that he was promoted as Professor "Extraordinare", which gave him all his time for research. In 1910 he went to Prague; in 1912 to Zurich; and in 1913 he

became Professor of Physics at the Berlin University and Director of the newly founded Kaiser Wilhelm Research Institute, where he published his famous General Relativity and Gravitation Theory in 1915.

The brilliant verification of his prediction on the bending of light rays in 1919 during the total solar eclipse by an English scientist (the First World War had just ended) brought him a flood of honour and public recognition. The Nobel Prize in 1921 for his researches on the Quantum Theory—not a word of Relativity was mentioned in the citation—, the august Royal Society's highest Copley Medal in 1925, are the more noteworthy honours accorded to him by the nations. The world has not yet honoured any other scientist to that extent.

Then all of a sudden came the third part of his life-story. Hitler's 'Kultur' of Nordic supremacy directly affected the Jews. Outraged at the indignities heaped on his tribe and himself, Einstein in 1933 fled from his country to become a Professor at the Institute for Advanced Studies, Princeton. "As long as I have any choice, I will stay only in a country where political liberty, toleration and equality of all citizens before the law is the rule", was his famous dictum. His only aim the rest of his life was to fight for the cause of freedom, for oppressed people all over the world. He appealed to all nations to help the refugees from Germany, Italy, and other countries. In particular, the United States, thanks to Einstein, has been the asylum of countless scientists from war-ravaged Europe.

When he saw that in the Second World War millions might have to be sacrificed, he wrote an historic letter to President Roosevelt in 1938, urging him to start the production of atom bombs. It was done with a sincere wish to save the massacre of millions. But when he saw that after the war the deadly weapons might be misused, he was the first to warn the world of the impending catastrophe. Scientists and politicians rallied round this frail man; and the fact that the cold-war danger has disappeared from the horizon is a standing tribute to this band of savants.

Einstein retired from his post in 1946 and lived quietly in his 112, Mercer Street, Princeton. And on the 18th April 1955, after a short illness due to gall-bladder trouble Einstein passed away. He was seventy-six.

❖ ❖ ❖ ❖

Posterity cannot forget the greatest scientist of the present century. Whereas the common man knows only about his relativity principles, the student of physical sciences is amazed at the number of fields of his researches. A mere enumeration of his most important contributions to our knowledge shows their variety:

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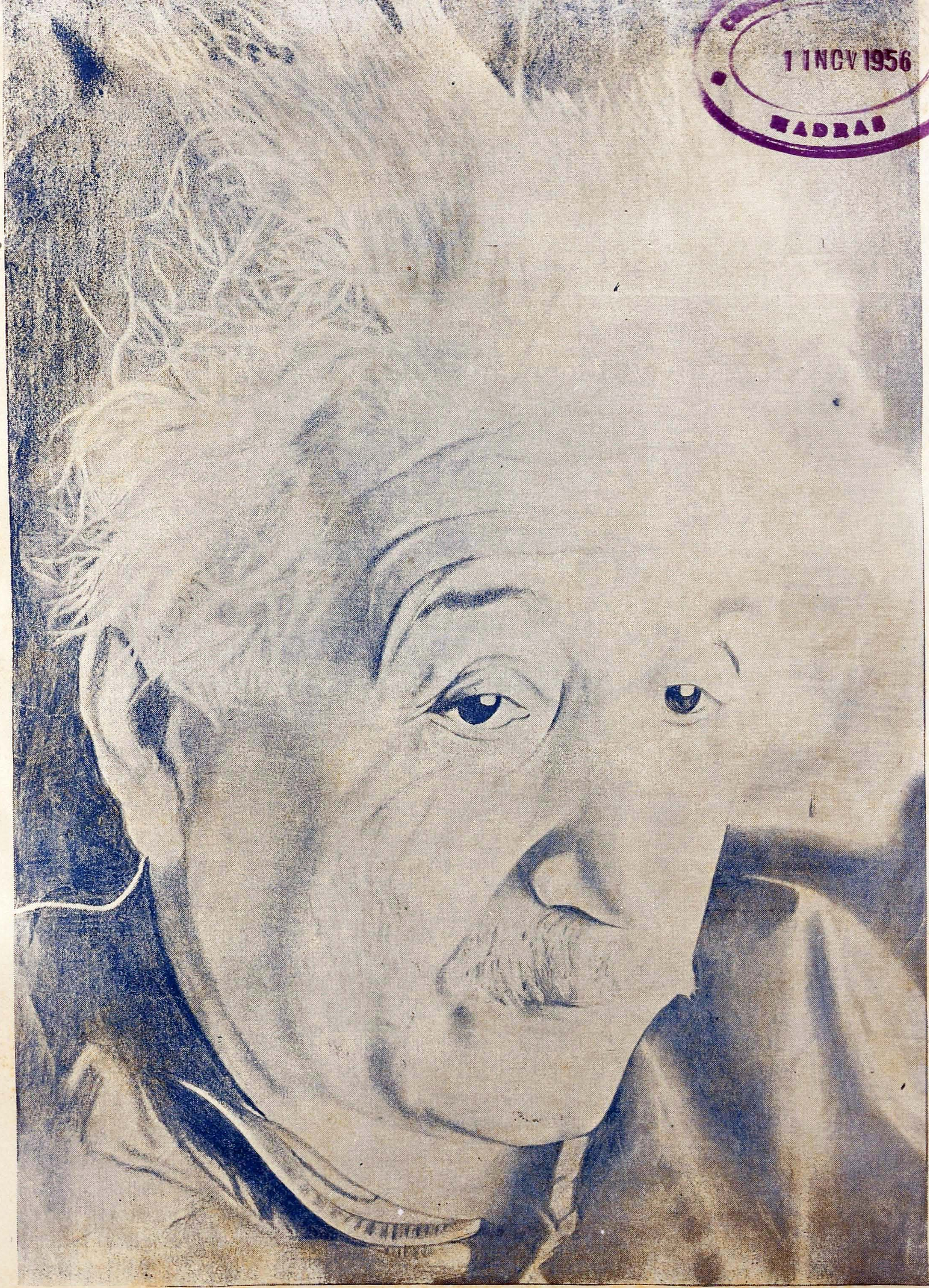

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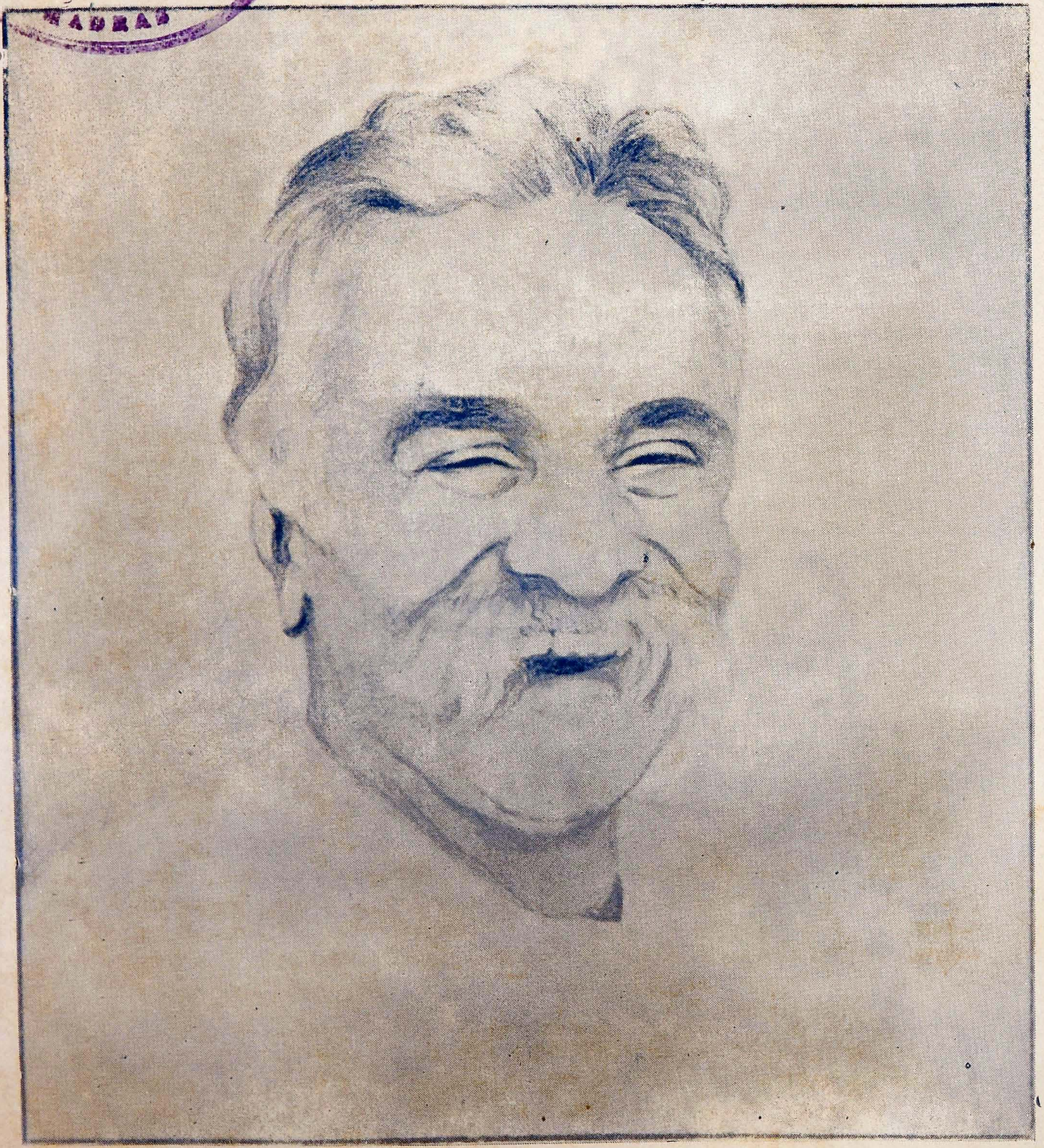

T. K. C.

(Pencil sketch by S. Ramasubramanian, III Hons)

Theory of light quanta 1905; Special Relativity 1905; Brownian movement 1905; Fluctuation Phenomena '06; Theory of specific heats '07; Photo-luminescence '07; General Relativity '15; Cosmological model of the universe '16; Statistical emission of light '17; Bose-Einstein gas statistics '25; Relativistic gravitational equations of motion '37; Unified field theory '51.

Throughout his life Einstein sought to explain the mysteries of the universe, its vast forces, its origin, its rationality and harmony. All his works are efforts in this direction. This is most clearly brought out in his theory of gravitation. Newton—the "apple-falling experience"—said that the motion of a particle is governed by the forces acting on it. A planet moves round the Sun because of the gravitational forces. But to Einstein a particle takes the shortest path. A planet moves in an ellipse because it is the shortest path—a geodesic in technical jargon—in the space which is curved! To take an analogy, suppose a boy is playing marbles on a rough ground. To a man watching from a high window or perched on a treetop, the marble deviates from its straight path because it is acted on by some invisible forces. But to a man on the ground, the motion is a result of the curvature of the ground over which the marble moves. Newton saw the first picture; Einstein approached closer to the truth by grasping the second. This conception, and even more its mathematical formulation, is the greatest triumph of human logic. Newton's idea was transcendental intuition.

Einstein's researches have thoroughly reoriented the philosophy of physical sciences. He has forced us to change our concepts of such metaphysical entities as space, time, simultaneity, and absolutism. He is the originator of the modern school of physics for whom only experimentally observable quantities have any significance. It is thus useless to talk of empty space because no such entity can be detected. The moment an apparatus is put to investigate such a hypothetical space, it is no longer empty but is curved owing to the presence of matter. This far-reaching thesis guided Professor Heisenberg to set up a new scheme of mechanics, culminating in his famous Uncertainty Principle. In Physics today, the word "always" means "more often than not, most probably".

Paradoxically, though Einstein dealt the death-blow to absolutism and though laymen think everything is relative in this universe, the whole theory of relativity is based on two invariable entities: the constancy of the velocity of light, the upper limit to the velocity of a material particle, and the invariancy of physical formulae. The latter, shorn of technical phraseology, simply means that if a stationary man sees an object as a donkey, a running man also will see it as a donkey, though it might appear a little distorted. This principle gave, on the macroscopic scale, the contraction of space, the dilation of time, and

the world-famous—a politician called it the most widely known equation—mass-energy equivalence. In the hands of Professor Dirac it also explained the odd properties of the fundamental electron.

Lesser mortals might have trumpeted such achievements. But Einstein was very unpretentious. He was offered the presidentship of Israel, but he was content to be a simple Professor, a genial figure usually in a suit that needed pressing and a pullover slightly too big for him. A little girl of eight, living opposite his house at Princeton, used to be proud that every day she spent fifteen minutes with Einstein working out mathematical problems. It is said that once when he was crossing the Atlantic, the captain of the ship offered him a palatial suite of rooms free; Einstein not only refused the offer but paid for his cabin.

His religious faith was modest and simple. He did not believe in a personal God. "That deeply emotional conviction of the presence of a supreme Power which is revealed in the harmonious beauty of the universe, forms my idea of God", summed up his view. He came very near the agnostic philosopher as conceived by another famous Jew, Spinoza.

Einstein's sense of humour was remarkable. Though generally taciturn, he often gave sparkling retorts. Once in the late twenties he was asked in Paris how he would have felt if his theories had failed. With a wry smile he replied: "The French would think I am a German and the Germans would call me a Jew." His maxim on the inter-dependence of science and religion was pithy: 'Science without religion is lame; Religion without science is blind'.

Einstein's first marriage to Mileva Maritsch, by whom he had two sons, was dissolved, and in 1916 he married his cousin Elsa Einstein, who died in 1936. His daughter was at his bedside when he died.

Besides being a physicist, philosopher and politician, Einstein was a good violinist. Though he never gave a concert, the learned virtuosos rated him very high. The violin remained to the last a hobby for him, a solace at trying moments.

There is no doubt at all that Einstein will be remembered for aeons to come. Of him it can be truly said: 'His scrolls will outlive the monuments of stone. Genius survives; all else is claimed by death'.

Can Peace Be Had?

By K. C. VIJAYAGOPAL, V Hons.

THE fundamental principles governing world politics have remained the same throughout the centuries. They involve expansion of states, rivalry among them, and self-assertion of conquered peoples. Hence the world has never enjoyed permanent peace. Rivalry among nations remains a constant factor; with new rivalries, new alignments have also come into existence. Thus we see to-day the world torn into two power blocs led by the USA and USSR with only a few neutral nations left in the middle. The Second World War was supposed to have been fought to end wars and achieve peace; instead we got only the 'cold war' with peaceful fighting in Korea and Kashmir.

The present state of affairs if allowed to go on will result in disastrous consequences. War is now outmoded and nations must learn to rely more and more on negotiations for settling their differences. The outlawing of war will be a great step forward in the march of human civilization which is threatened to-day with total annihilation. Can we do this and have peace? It does not seem to be impossible if all nations are bent on having permanent peace.

As a first step towards peace the nations should accept the status quo in the world to-day as a starting-point for negotiations. This now seems to be increasingly realized. The present state of the world, divided into two main spheres of influence, may continue to be so for some time unless a war or a revolution changes it. The neutral nations can help by bridging the gap between the opposing camps.

If this condition is accepted, all nations will have to stop tactics such as infiltration and subversive activities. Questions such as Korea, Formosa, Indo-China and Germany will have to be settled soon. It is for each people to decide freely what form of government and social set-up it will have. No outsider has any moral or legal right to interfere in the internal affairs of any nation. Mutual compromise and adjustments are the essence of politics.

The democratic Powers of the West are very eager to save the weaker nations from falling a prey to Communism by giving them economic and military aid. But their efforts are not fully appreciated by the nations thus helped, because the West still seems to cling to the ideas of revitalised colonialism and active racialism. The West should give up those old ideas and move with the times. Diplomatic, economic, and political sanctions should be applied against countries which seem to be bent on practising flagrant racialism and outdated

imperialism. If these injustices are not remedied, they may soon lead to world revolution.

Then the problem of disarmament should be solved. The arms race, if not checked soon, will end in a global war. All nations agree that another war will be disastrous to all; still disarmament cannot be easily achieved. Men have tried to solve this problem even in the past when war did not mean the suicide of mankind as it does to-day. To discuss the question Nicholas II, the Czar of Russia, once held a conference at the Hague. Again, the same question was debated at the Naval conference at Washington in 1921, and in London in 1930. The League of Nations also pursued the question, and even now the UNO is trying to get at a solution. So far men have not found a satisfactory solution. Is disarmament, then, a mirage?

The fact is that disarmament will not precede peace but will only follow it. Statesmen and politicians are discussing problems derived from the threat of war, while they do not dare face the real problem of abolition of war. Military preparations are going on side by side with peace talks. But we cannot talk of peace and achieve it while we are actually preparing for a major atomic war. It is said that these military preparations increase the chances of peace and of victory in case of war. But in fact as the arms race goes on, it produces little change in the relative strength of the parties concerned; and it may any day break out in war. The present threats and tensions in the world are kept up by mutual illusions of war. So far as the masses are concerned, no nation wants war. The establishment of mutual trust and good will is necessary for achieving disarmament. Nations must begin to feel that huge armies and armaments are unnecessary. This will inevitably be a gradual process.

The UNO, in spite of its defects, is the only instrument which we at present have to strive for and secure even temporary peace. During the few years of its existence it has done much towards the achievement of international cooperation in various fields. Though a world government may not be possible, still the UNO can do much for the betterment of the world. In judging the work done by this organisation we should remember that "it was not set up to get us to heaven, but only to save us from hell."

Still there are many improvements to be made if it is to work efficiently. First of all, the Veto power enjoyed by the members of the Security Council should be modified so as to safeguard it against misuse. The Universal Declaration of Human Rights should be effectively enforced. It should also be remembered that the exclusion of any nation from the UNO weakens that organization. Only nations which are deliberately trying to undermine the aims of the UNO should be

kept out. The UNO should also be ready to meet armed aggression in any part of the world with armed forces from the member countries. In the economic and cultural fields the UNO is already doing good work.

Thus paving the way for peace, the nations of the world should cooperate and pool their resources for the social and economic betterment of mankind. Any country, however great, is limited by its own resources, all of which can be increased by co-operation with other nations. The wealthy nations should readily help develop the underdeveloped regions of the world and thus raise the standard of living of the peoples there. As pangs of hunger increase, men lose their clarity of thought and are easily led astray by dangerous and deceitful forces. If the democratic West wants to check the expansion of Communism, let it do so by destroying the causes which help the spread of Communism. In this matter, economic aid and other peaceful measures will have better and more permanent effect than military alignments and defence treaties which only spread distrust and suspicion. Nations with a different economic and political set-up should coexist peacefully, with the reservation that those who advocate the violent overthrow of any existing order should be dealt with adequately according to the laws of the land. All peoples should cooperate in meeting the common tasks of mankind everywhere.

The more we join together in action for the common good, the better we feel towards one another, for comradeship draws people together. Then, and only then, may world peace be possible.

Lucidity

'Lucidity does not mean ease of appreciation by the stupidest reader or by the reader with the smallest vocabulary; nor does it mean the expression of ideas which are more easily grasped than others. It means that quality in prose whereby whatever you have had in your mind, however difficult to convey, however unusual, however much requiring the use of terms which may be unfamiliar, shall in the highest degree of clarity possible reappear in your reader's mind.'

—BELLOC

Distance lends Enchantment....

By T. N. SEETHARAMAN, V Hons.

"SOMU, Somu," Father shouted, "wake up." Somu woke up for a moment, rolled over in his bed, buried his face deep into the pillow, and was asleep again. "Somu! wake up. It is past seven," Father said perseveringly. And he was right. The bright rays of the morning sun had managed to peep through the open window and Somu began to feel the intensity of its heat. A noisy father and a hot sun left Somu with no option. He had to get up and he did it reluctantly. Presently he sat up in bed and rubbed his eyes vigorously to drive away any residue of sleep still clinging on to them.

"In our College days we used to get up at 4 o'clock in the morning and study by a hurricane lantern. Look at the boys of today. Oh!" father commented gravely before making his exit from the scene.

Somu rolled his mat, threw it in a corner, and was in the back-yard. The teeth-cleaning ceremony commenced. As the tooth-brush went this way and that way mechanically and almost unconsciously, Somu's thoughts wandered.

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Yesterday was Sunday. He had spent the whole day loitering about the town. He had made courtesy calls on some of his friends, spent a whole hour or two in the India Coffee House sipping a cup of hot coffee (which was cold towards the end) in pleasant conversation with his friends, and had seen a Hindi film which had a shadow of a story serving as a link between a song and a dance. On the whole, it was a pleasant day, though it left him tired towards night. His only thought on returning home was to have a hurried supper and stretch himself on his mat and snore. But at this very moment Father intervened: "Sunday is declared a holiday for you to rest and not to loiter about the streets like a stray donkey. You should either devote it to study or rest." Somu did not open his mouth. He knew that silence is sometimes diplomatic and eloquent.

"In our College days we used to spend the whole of Sunday studying from morning till bedtime," Father added reminiscently.

Somu had his supper and was in his room presently. He opened a book; his head reeled. He felt sleepy, but somehow kept himself

awake and ran his eyes through the printed page, all the while yawning wide. Half an hour elapsed in this manner. Somu closed the book, kicked his mat, and had put out the light and thrown himself on the mat before it could roll itself fully out.

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The reader knows what happened on Monday morning. Somu's thoughts passed on to the future. The Monday-morning feeling overtook him. There was a whole week, six full days, before next Sunday could arrive. He was looking forward to that day already, but before that he had a whole week to spend in the classrooms. He felt very unhappy.

Somu's thoughts were interrupted for some time. He cleaned his teeth, washed his face, had a cup of hot coffee (that king of all beverages) and was at his desk. He glanced through the morning paper. There was nothing new in it. Reports, on the death-grapple of communists and democrats in a Far-Eastern country, on the visit of a Minister to a development project, on the divorce of a Hollywood film star, on the murder of a man by his own wife—all these and many others found him far from interested. He opened the book and started at the page where he had left off the previous night. No, he could not continue for long. His thoughts skipped from one thing to another. He smiled at the drudgery of human life. He had been a student for so many years, a university student for nearly four years. Oh! What a life! Getting up in the morning, going through one's morning routine, attending College, listening hour after hour to a whole army of lecturers and professors, coming back home in the evening, as the birds fly back to the nest at dusk, to study, if possible, and go to bed. This had been his time-table for the past four years (leave alone the holidays and vacations which pass away at lightning speed). There had been no change in this routine and particularly in college life. No variety, no change. All this thought and mental conflict led him to the inevitable conclusion: college life is a terrible bore. He wanted to get rid of this "old man of the sea." He looked forward to that happy day when he would finish his examinations, bid goodbye to college, and go into the world free as a bird of the air.

It was now nearing 9 o'clock. Somu hurriedly had a bath, took his breakfast, got dressed and was off. He called at Ramu's house. Ramu was ready waiting for him and they both started for College. As they walked, they exchanged views about their experiences the precious day. Somu conveyed to Ramu his thoughts of the morning, and Ramu, as usual, endorsed every word of what he said. College life is a terrible bore, the lectures are a bore, the whole world is a bore, they decided unanimously. They agreed that the day they finished their exams. and walked out of the College would be the happiest in

their lives; and resolved that they should celebrate it with a grand dinner and a film. As the resolution was passed without opposition and with much enthusiasm, they were inside the College. It was nearly 10 o'clock.

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Reader, as you well know, Time is very fleet-footed. You get up in the morning, say by six o'clock, and before you prepare yourself for the daily round of duties, it is seven; you attend to this and that and it is ten. Soon the sun reaches the zenith; some more time and it is evening. Evening shades off into night and bedtime. You feel as if you had not had an ounce of sleep, but it is already morning. It is the same at College. You have just paid your first term fees and settled down to work, when you are in September. Along comes the second term and before you can realise that, the December exam. time-table is put up. Here, as if in a moment, is the third and last term. Presently you are in March, with the annual or the University examination to face.

Somu and Ramu had the same experience. The day they looked forward to so fondly approached fast. Being industrious and somewhat intelligent too, they worked hard with only one aim in view—not the examination, but the end of it. It did not take very long for them to reach that day too; but when it arrived, it did not find them overjoyed. They had crossed another milestone in their lives. They bade goodbye to their friends, asking one not to forget them, another to keep on writing to them, and so on. They kept strictly to their plan: the dinner was quite good, the film was not bad, though enlightened critics had described it as "amazing."

It was nine o'clock at night. Somu rolled out his mat and stretched himself on it. He had planned to have a good sleep that night, after all the work and worry of the examination. But he could not sleep. Sleep, which used to come by 8 o'clock before, refused to come now. He rolled in bed and began counting sleep, all in vain. He was still awake, wide awake. He began to think. The occurrences of the day presented themselves one by one in front of his mind, and he began to evaluate them. He had looked eagerly forward to that day for the last six months; but when it arrived it did not pour forth all the happiness and enjoyment he had expected out of it. It passed off like any other day, say like an ordinary Sunday. And certainly it was not the happiest day in his life (considered in the light of his own standard of happiness) as he had expected it would be. Why was this so? The answer he found by looking into the future. It was not bright. Indeed it was dark, gloomy. He had not the least idea of what he was going to do. He had thought that the future would take care of itself, if he looked after the present. But it looked as if the future needed his care.

What was he going to do about it? He did not have to answer this query, since sleep, "nature's sweet balm," overtook him at this moment.

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Night passed into day, days filed past and months rolled by. Somu was still an unemployed graduate, an insignificant one of the millions of frustrated men and women in India. He regularly looked into the "Wanted" columns of the newspapers and tirelessly sent a stream of applications for the advertised posts. He collected a pile of certificates from everybody who was anybody, from the Principal of his College to the retired Government official next door. Everybody certified in superlatives—his conduct was "excellent," everything was superb about him. But still he was unemployed. He attended interviews well-dressed, and answered questions well, and his manners were refined. But he never knew what happened to those jobs and who was selected. Somebody had assumed that office—they said, through a shortcut—and he knew only the right royal path. He had registered his name in the "Employment Exchange" and renewed it promptly every second month, as the rules require. The "Exchange" people kindly offered him an elementary school teacher's job and a Lower Division clerk's post, which he proudly refused, and nothing more was heard from them. After all, the fact remained that he was a graduate, unemployed, and with no chance of employment in the near future.

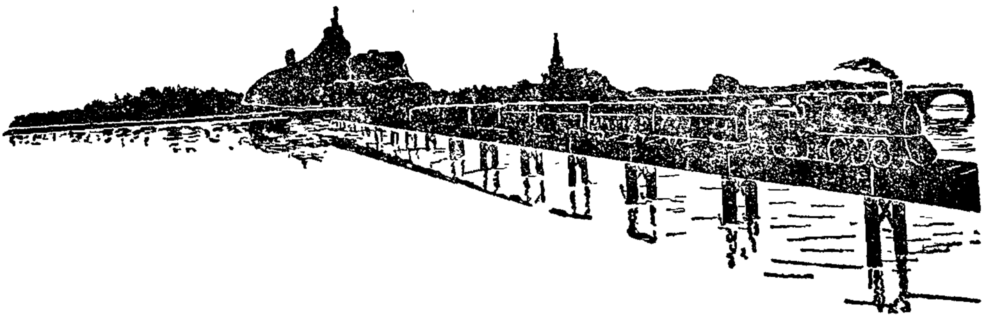
Ramu came to meet him the other day. "Somu, what happened to that Junior Assistant's post? Any chance?" he asked. Somu smiled ironically. "There are so far fifteen thousand applications for those fifteen posts, and I hear M.A.s and M.Sc.s are trying for them. What chance have I?" He smiled again. Ramu, who also had submitted an application for the post and had entertained a slight hope in his mind, smiled helplessly at Somu. They remained silent for some time and both minds were thinking alike about the dullness of life.

"Oh!" Somu sighed, "College life was much better. Of course, one had to attend classes and listen to the lectures. But in spite of that it was fine. What friends and what nice hours!" he added.

"Even the classes were not that bad. Mr. X's jokes were fine, even though he cracked the same ones exactly ten times every year." Ramu joined in.

"Oh, I wish I were in College again. It is so pleasant. Life is so happy over there" Somu added.

Ramu nodded his head in silent assent.



மெயில் விடு தூது

By S. M. Devarathinam, V Hons.

பார்புகழ் மெயிலே பார்புகழ் மெயிலே
பார்முழு துலவும் பெரும்பெயர் மெயிலே
கால ஆழியின் ஆணையிற் படிந்து
நீல மலையாம் நெடுந்தொலை செல்வோய்
கோவையில் வதியும் குலக்கொடி யாமென்
கற்பக வல்லியைக் கண்டனை யாயின்
இல்லற மென்னும் இனிய கனவினை
நல்லற மென்ன நாட்டுவான் எண்ணித்
துணிந்த முயற்சிகள் தோல்வியில் முடியவும்
தணியாத் துன்பம் தலைத்தலை யெய்தி
உறக்கமும் உணவும் ஒருங்கே மறந்து
துறந்தார் போலத் தோற்றுவன் என்று
முல்லைக் கொடியின் மனநடுக் குருது
சொல்லு தியோநீ சோர்வில் மெயிலே
அயிர் நனி வாட்ட வருந்து மென்
உயிர்விழை செய்தியை உணர்த்துதற் பொருட்டே.

தமிழிலக்கியத்தில் விலங்கினங்கள்

By C. RAMAN, I U.C.

பழந் தமிழிலக்கியங்களில் புட்களைப்பற்றியும், மாக்களைப்பற்றியும் பலவிடங்களில்—பல சமயங்களில் வந்தபோதிலும் ஐவகை நிலங்களான முல்லை, குறிஞ்சி, மருதம், நெய்தல், பாலை என்பவற்றிற்குரிய ஐவகைத் திணை பொழுக்கங்களை விரிக்கும் பதினெண் மேல்கணக்கு நூல்களிலேயே அவைகளைப்பற்றி மிகுதியும் காண்கின்றோம். அவ்வத்திணைக்குரிய ஒழுக்கத்தினைக்கூறும் புலவர் அவ்வவற்றிற்குரிய கருப்பொருட்களைக் கூறுவாராய் மாவையும், புள்ளையும் குறிப்பிடுகின்றனர். குறிஞ்சித் திணைக்குரிய மாவாக புலியையும், பன்றியையும், யானையையும் கூறிப் புள்ளாகக் கிளியையும், மயிலையும் கூறினர். முல்லைக்கு முயலும், மானும் மாவாகவும், கானங் கோழி, மயில், கவுதாரி ஆகியவை புள்ளாகவும் கூறப்பட்டன. மருதத்திற்கு எருமையும் நீர் நாயும் மாவாம். நீர்க் கோழியும், தாராவும் புள்ளாம். நெய்தலுக்குரிய மா அரவும், முதலையும்; புள் அன்னம், அன்றில், அகன்றில் என்பவை. பாலைக்குரிய மாவாகச் செந்நாயும், புலியும், வலியிழந்த யானையும் கூறப்பட்டன. புள்ளாகக் கழுகும், பருந்தும், புறவும் கூறப்பட்டன. இனி ஒவ்வொரு திணை வளத்தினைக் குறிக்கும்போதும் வெவ்வேறு புலவர் எவ்வாறு கூறியிருக்கின்றனர் எனக் காண்போம்.

குறிஞ்சித்திணையில் நடக்கும் ஒரு காட்சியை இளங்கோவடிகள் படம் பிடிக்கிறார். நன்கு விளைந்த தினை வயல்கள்; அவற்றைக் காவல் புரியும் குறமகளிர்! குளிரி, தட்டை முதலிய கருவிகளைக்கொண்டு ஒலியெழுப்பி குருவிகளை யோப்புதல் ஆகியவற்றைக் கீழ்வரும் சிலப்பதிகார அடிகளில் கூறுகிறார்.

"குருவியோப் பியும், குன்றத்துச் சென்று வைகி
யருவியாடியும், சுனை குடைந்தும் வருவோம்."

"இரவு நேரங்களில் தினைப் பயிரினைத் தின்னவரும் யானை, காட்டுப் பன்றி போன்றவற்றை விரட்டக் குறவர் காவல் புரிவர். அவர்கள் கையிலுள்ள நெருப்புக் கொள்ளிகள் உடுக்கள் போன்று விளங்கும்" என்று குறுந்தொகைச் செய்யுள் ஒன்று கூறுகிறது.

மற்றொரு வேடிக்கையான காட்சி. குறமகளிர் தினைப்புலத்தைவிட்டுச் சுனையாடச் செல்வர். அப்பொழுது குரங்குகள் தினையினைக் கவர்ந்து செல்லும்.

நற்றிணையில் குறவர் இறைச்சி சமைத்து உண்ணும் காட்சியொன்று வருகிறது.

இவை யாவற்றினும் அழகானதொரு காட்சி அகநானூற்றில் வருகிறது. "தினை வயலில் உயர்ந்த பரண் அமைந்துள்ளது; அதில் சிங்கத்தையொத்த வலிமையுடைய கானவன் வீற்றிருக்கிறான்; ஒரு குறிஞ்சி நிலமகள் சுனையாடிவிட்டுத் தன் கூந்தலைக் கோதிக் கொண்டே குறிஞ்சிப் பண் ஒன்றை இசைக்கிறாள். மிகுந்த பசியினால் தினைப்பயிர் உண்ணவந்த யானையொன்று அவ்விசையில் மயங்கி உறங்குகிறது."

"அங்குள்ள கானவர் இராக் காலத்தே மான்கள் நீர் குடிக்கவரும் குளத்தருகே மறைந்திருந்து அங்கு வரும் காட்டுப் பன்றிகளை வேட்டையாடுவர்; பகற் காலத்தே தாமரையின் புற இதழ் போன்ற வெண்ணிறம் படைத்த முயல்கள் தப்பியோடா வண்ணம் வலைகள் கட்டி, நாய்களுடன்

சென்று வேட்டையாடுவர்" என்று பெரும்பாணாற்றுப்படைச் செய்யுள் ஒன்று கூறுகிறது.

முல்லை நிலம் காடும் காடு சார்ந்த இடமுமாகும். அங்கு வாழ்வோரில் பெரும்பாலோர் இடையர். அவர்களைப்பற்றி நெடுநெல்வாடைச் செய்யுள் ஒன்று நன்கு கூறுகிறது.

"காந்தள் மாலையணிந்த இடையர், ஏறுகள் உடைய ஆடு, மாடு முதலிய கூட்டங்களை மேயவிட்டுக் குளிர் வருத்தம் தீரும்பொருட்டுக் கையிலுள்ள கொள்ளியில் கையைக் காய்ச்சி அதனால் பெற்ற வெம்மையைக் கன்னத்தில் தேய்த்துக்கொள்வர்."

மருத நிலம் வயல்கள் நிறைந்தது; வளம்பெற்றது. "அங்கே எருமை தன் கன்றினை நினைந்து பசிய இலையில் பாலைச் சொரியும். அப்பாலினை ஒத்த அன்னமும், நாரையும் உழவர் எழுப்பும் ஒலியினைக் கண்டு அஞ்சும். தேன் கூட்டினின்றும் தேன் மலர்ந்த தாமரை மீது துளிக்கும்........ கிளிகள் கிள்ளைமொழியில் பாடும்" என்று உதயணன் காதை கூறுகிறது.

பெரும்பாணாற்றுப் படை இதன் வளத்தை, "கொல்லனுடைய முறிந்த குறட்டினைப் போன்ற கால்களையுடைய நண்டுகள் வளைகளைக் கால்களினால் தூர்க்கும், மண்ணிணையுடைய கொம்பையுடைய எருதுகள் நிலத்தையுழும் ......பிள்ளைகள் முற்றத்தில் அவலிடிக்கும் ஒலிகேட்டுக் குருவிகள் அஞ்சி ஓடும்......சிலந்திகள் வைக்கோல் போரினைச் சுற்றி மெல்லிய வலைகளைப் பின்னும்" என்று தெரிவிக்கிறது.

பட்டினப்பாலைச் செய்யுளொன்று "பரதவர் கடலில் பிடித்த இறாலைச் சுட்டும், வயல் ஆமைகளைப் புழுக்கியும் உண்பர் என்றும், ஆம்பற் பூவையும் அடம்பின் பூவையும் சூடுவர் என்றும், ஆட்டுக்கிடாய்களையும், கவுதாரிகளையும் பொருது விளையாட மன்றிடத்தே எடுத்துச் செல்வர் என்றும்" நெய்தல் நிலத்தைப்பற்றிப் பாடுகிறது.

பாலை நிலத்தைப்பற்றிக் கூறுகையில் பலவகைப்பட்ட மரங்களும் பட்டுப் போயிருப்பதால் அதனிடத்து மயிலும், குயிலும் செல்லாவெனவும், புறாவின் காற்சிவப்பையுடைய சேவல் பெட்டையுடன் விளையாட விரும்பிக் கூவும் எனவும், காட்டுப் பன்றிபோன்று வயிறு ஒடுங்கிய யானை நீர் வேட்கை மிகக் கானல்நீர் நோக்கி ஓடும் எனவும், பசி நீங்கப்பெறாத செங்குரங்கு காஞ்சுரையிலையிற் சிந்தியிருக்கும் தேனைக் கையிலெடுத்து நக்கும் எனவும், அதனைப் பெறாத அண்டையிலிருக்கும் கடுவன், சினையிலுள்ள தேனைக் குடிக்கும் எனவும் கன்றுடன் உலாவும் பெண்யானை நெல்லிக்காய்களை வாயில் அடக்கிச் சேறுள்ள பள்ளங்களில் நடமாடும் எனவும், இருப்பை மரத்தின் பசுங் கொத்துக்களை விரும்பி வெளவால்கள் அங்குமிங்கும் பறக்கும் எனவும் உதயணன் காதை தெரிவிக்கிறது.

தலைவன் தலைவியர் காதல் கொள்ளும்போது பறவைகளைப் பற்றிக் கூறுவது புலவர் வழக்கம். நளனுக்காகத் தமயந்தியிடம் அன்னம் தூது சென்றதாகப் புகழேந்தி கூறுகிறார். கம்பனின் இராமகாதை கழுகொன்று இராவணனை யெதிர்த்ததைக் கூறுகிறது. பழஞ் செய்யுள் ஒன்று வறுமையடைந்த புலவனொருவன் நாரையைத் தன் மனைவியிடம் தூது அனுப்புவதைச் சொல்லுகிறது. கிளியைத் தூதாக விடுஞ் செய்தி கிள்ளை விடுதூது என்னும் ஒரு இலக்கியமாகவே இலங்குகின்றது. தமிழ் இலக்கியத்தில் விலங்கினங்கள் என்பது ஒரு பெருநூலாகவே விரித்தற்குரிய அரும்பொருள் என்க.

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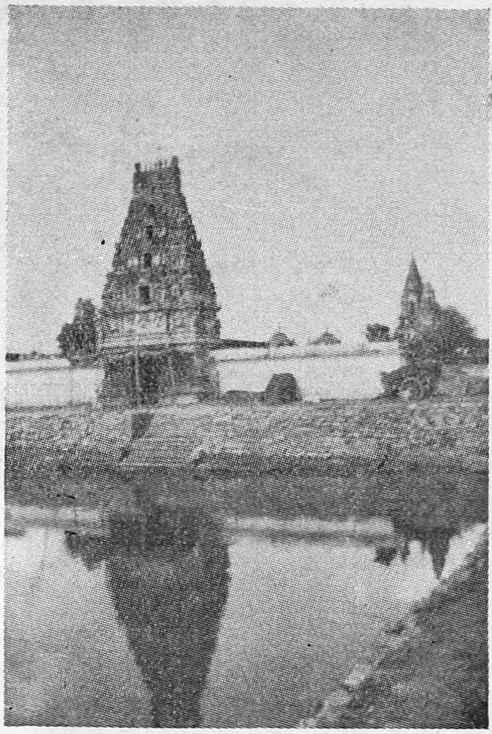
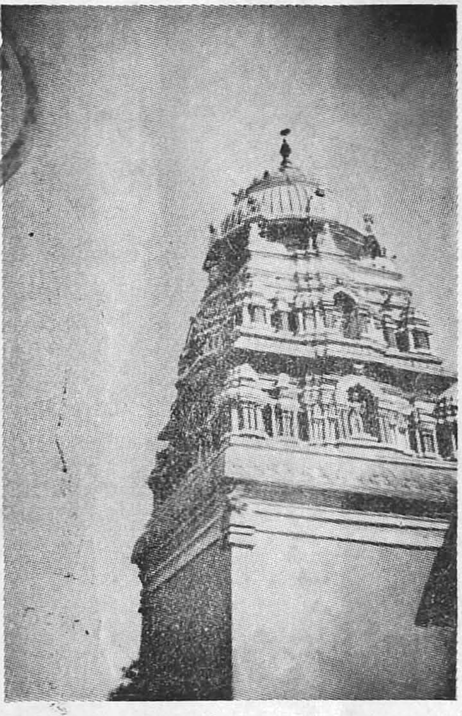
SNAPS



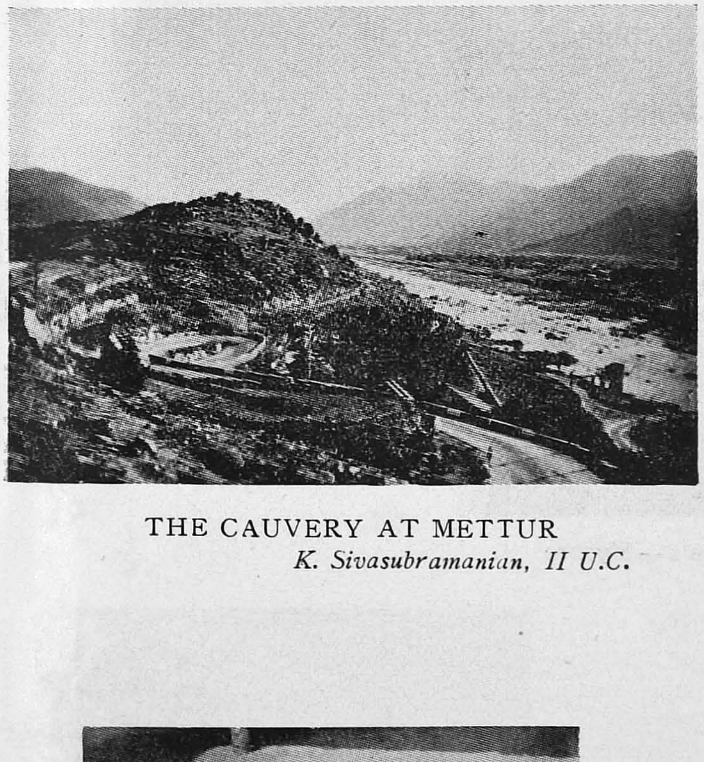
VILLAGE TEMPLE

A. Gnanaraj, IV U.C.



BULL TEMPLE, BANGALORE

K. C. Ramamurthy, IV Hons.



THE CAUVERY AT METTUR

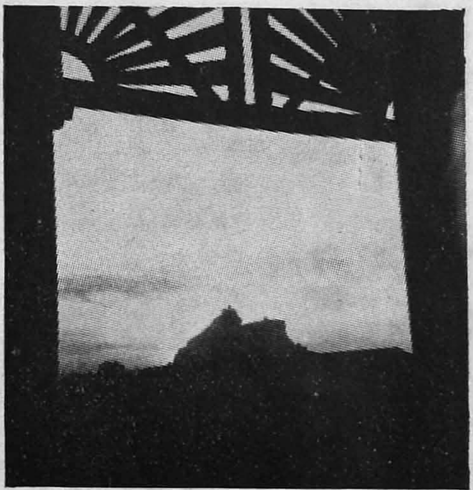
K. Sivasubramanian, II U.C.

SRIRANGAPATNAM

A. Srinivasan, II U.C.

HIS MAJESTY: COBRA

T. S. Rajamany, IV Hons.



STILL LIFE

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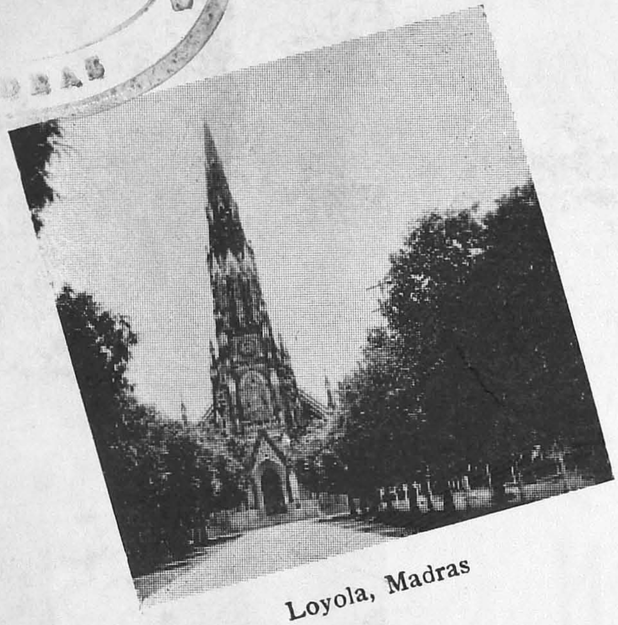
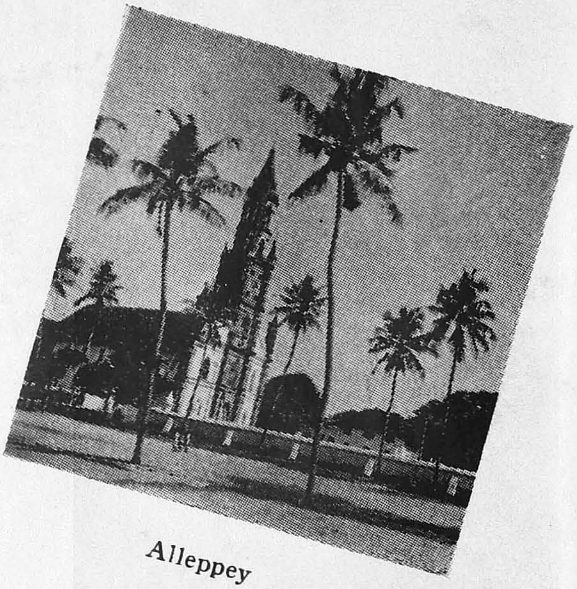


Loyola, Madras



Alleppey

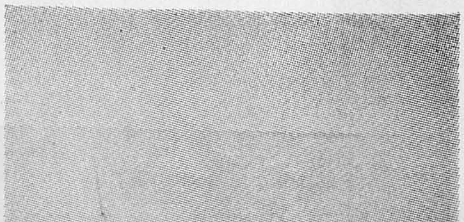
ARTISTIC CHURCHES

St. Philomena's — Mysore

St. Joseph's — Trichy

Photos by

R. Annamalai,
III U.C.



Cape Comorin

பழந்தூங்கு முதிரத்துக் கிழவன்

By M. AUGUSTINE ABOORVASAMY, III U.C.

முதற் காட்சி

இடம் : குமணனது அரண்மனையின் ஒரு பகுதி.
காலம் : முற்பகல்.
பாத்திரங்கள் : இளங்குமணன், அவனது நண்பன்.

(இருவரும் உரையாடிக்கொண்டிருக்கின்றனர்.)

நண்பன் : இளவரசே! குமண மன்னரை மாரியொத்த வள்ளல் என்று மாநிலம் புகழ்கிறது. கருவூலத்திலிருக்கும் பணத்தையெல்லாம் அவர் கரைத்துக் கொண்டிருக்கின்றார். அந்தச் செல்வத்தில் உங்களுக்கு எவ்விதப் பங்கும் இல்லாததுபோல், தாங்கள் சொல்லுகின்றவைகளைத் தட்டிவிடுகிறார் குமணன்!

இளங்குமணன் : உண்மைதான். பொதுப்பணத்தை அள்ளி வீசிப் புண்ணிய வான் என்று பெயர் வாங்குகிறார் தமையன். என்னை இதுவரையில் எவனும் புகழ்ந்து பாடவில்லை!

நண்பன் : தங்களைப் புலவர்கள் புகழ்ந்து பாடாதவாறு தடுத்துவிடுகின்றார் குமண மன்னர்.

இளங்குமணன் : அப்படியா ?

நண்பன் : இளவரசே! இதுபோன்ற எத்தனையோ நிகழ்ச்சிகளை என் கண் களால் பார்த்திருக்கிறேன். அவர்மட்டுமே பொருள் தருவதால், அவரைப்பற்றித் தான் பாடல் புனையவேண்டும் என்று குமண மகாராஜா, ஒரு புலவரிடம் கூறிக் கொண்டிருந்ததை நான் பார்த்திருக்கிறேன். இந்த நிலை நீடித்தால் இளவரசராகிய தாங்கள் இருக்கின்ற இடமே மக்களுக்கும் மண்டினி ஞாலத்துக்கும் தெரியாமல் போய்விடக்கூடும்!

இளங்குமணன் : பூரிப்புத்தரவல்ல புகழ் சம்பாதிக்கப் புதிய புதிய வழிகளைத் தமையனார் ஆராய்ந்துகொண்டிருக்கிறார் போலும்!

நண்பன் : அத்துடன் முதிரமலை நாட்டின் செல்வத்தை அழித்து, முரசு கெழு தானையுடன் வாழவேண்டிய இளவரசரை ஏழையாக்கிவிடப் போகிறார். இது...... அதாவது அவரது நடவடிக்கைகள்.........

இளங்குமணன் : உடனடியாகத் தடுக்கப்படவேண்டும். இந்த இளங்குமணன் வெடிக்கப்போகும் எரிமலை என்பதை அவரிடம் விளக்கவேண்டும்.

நண்பன் : அதோ குமண மகாராஜா வருகிறார்.

(குமணன் வருகிறான்)

இளங்குமணன் : அண்ணா நாட்டின் செல்வம் நாலா வழிகளிலும் செலவழிக் கப்படுகின்றது. பஞ்சம் ஏற்படும்படியான பயங்கர சூழ்நிலை வளர்பிறைபோல் வளர்ந்துகொண்டிருக்கிறது.

குமணன் : தம்பி! பாடி வருவோரையும், நாடி வருவோரையும், பொருள் கொடுக்காது எப்படித் திருப்பி அனுப்ப இயலும் ?

இளங்குமணன் : குடிமக்கள் உங்களது போக்கைக்கண்டு குமுறுகின்றனர். அரியணை ஏறியது ஆட்சி புரிவதற்குத்தானே தவிர படை படையாக வரும் பட்டினிப் பட்டாளங்களுக்கு பரிசில் வழங்குவதற்கு அல்ல என்பதைத் தாங்கள் உணர வேண்டும்!

குமணன் : இளங்குமணா! சினம் கொள்ளாதே. தேளெனக் கொட்டும் பசியால், தேம்பி அழுவோரை, ஆதரிப்பது, அரசனுடைய தலையாய கடமை அல்லவா. நாட்டின் நலமும், நாட்டினரது நல்வாழ்வும்தானே என் இரு கண்கள்.

இளங்குமணன் : அமைச்சரவை தூங்குகிறது என்று ஆங்காங்கு கேள்விக் கணைகள் புற்றீசலெனக் கிளம்பிக்கொண்டிருக்கின்றன. மன்னர் அத்தாணி மண்டபத்தை விட்டு ஒரு அடிகூட எடுத்துவைப்பதில்லை என்று மக்கள் பேசியவண்ணமாக இருக்கின்றனர். பாவலர்தம் ஏத்தொலி கேட்டுக் கேட்டுப் பரமானந்தம் அடைந்து கிடக்கும் உங்களுக்கு மக்கள் கூக்குரல் எங்கே கேட்கப்போகிறது?

குமணன் : கசடுடன் பேசாதே. என் கடமைகளிலிருந்து நான் சிறிதும் வழுவவில்லை......நாட்டு மக்களது உள்ளம் எனக்குத் தெரியும்.

இளங்குமணன் : வெகுண்டெழப்போகும் மக்களது வெள்ளம்போன்ற வினாக்களுக்குத் தாங்கள் ஒருநாள் விடையளிக்க நேரிடுமென்பதை......

குமணன் : தம்பி......உன்னிடம் பேச நான் விரும்பவில்லை!

இளங்குமணன் : ஆனால் நான் விழைகிறேன் குமணரே! எனது பங்கையும் சேர்த்து இரவலர் கூட்டத்துக்கு ஈனும் மன்னரே உங்களது அழிவு நாள்......நீங்கள் ஆட்சி பீடத்திலிருந்து ஓடும் நாள்......அருகில்தானிருக்கிறது. எந்த இளங்குமணனது வார்த்தைகளை நீங்கள் அலட்சியம் செய்தீர்களோ அதே இளங்குமணன், கோலேந்தும் கோமானாக மாறித் தங்களைக் குற்றவாளிக் கூண்டிலே நிறுத்தப் போகிறான்.

குமணன் : (சினத்துடன்) நீயும் அரசற்குடியில் பிறந்தவனா? வேண்டாமடா...

இளங்குமணன் : சந்தேகப்படவேண்டாம் சக்ரவர்த்தியாரே! என்னை வாழ்த்திப் பாடாதவாறு தங்களால் தடுக்கப்பட்ட புலவர் ஈட்டம், இதே இளங்குமணனை வானளாவப்புகழ்ந்து பாடும் பொன்னாள் வந்துகொண்டிருக்கிறது. படைத்தலைவன் முதல் தங்களுக்குப் பக்கதுணையாக இருந்தோர்வரை, என்னைத் தலைவனாக ஏற்றுக் கொள்ளுவதற்குத் தயாராகயிருக்கின்றனர். வருகிறேன்.

(இளங்குமணன் செல்கிறான்)

குமணன் : இளங்குமணா! இளங்குமணா!!

(மயங்கி விழுகிறான்)

இரண்டாம் காட்சி

இடம் : கானகம்
காலம் : காலை
பாத்திரங்கள் : பெருஞ்சாத்தனார், குமணன்

குமணன் : தண்டமிழ்ப்புலவரே! காயும் கனியும் உண்டு, கானகத்திலே உறங்கும் இந்தக் குமணனிடமிருந்து தாங்கள் என்ன எதிர்பார்க்கின்றீர்கள்? சோகத்தின் கோடுகள், வேதனையின் அடையாளங்கள் தங்களது முகத்தில் படர்ந்தோடிக் கொண்டிருக்கக் காரணம்?

பெருஞ்சாத்தனார் : ஐயனே! வறுமைப்பிணி என்னைத் துன்புறுத்தி வருகிறது! ஒருபிடி அன்னம்கூடக் கிடைக்காது என் மனைவி, மனம் நொந்து கிடக்கிறாள். அன்னைப்பால் காணாத 'பாலகன் அலறித் துடிக்கிறான். சேய் துயரையும், தாய் துயரையும் காணப்பொறுக்காத நான் அவற்றை நீக்கும் பொருட்டு, இரவலர் தம்மை இன்முகத்துடன் ஆதரிக்கும் உன்னைத் தேடி வந்தேன்.

ஆடு நனி மறந்த கோடுய ரடுப்பின்
ஆம்பி பூப்பத் தேம்பு பசியுழவாப்
பா அலின்மையிற் றேலோடு திரங்கி
இல்லி தூர்ந்த பொல்லா...............
சுவைத் தொறழூ உந்தன் மகத்து முகம் நோக்கி
நீரொடு நிறைந்த விரிதழ் மழைக்கணென்
மனையோ ளெவ்வ நோக்கி நினைஇ
நிற்படர்ந்திசினே நற்போர்க்குமண
என்னிலை யறிந்தனை யாயினிந்நிலைத்
தொடுத்துங் கொள்ளா தமையலெ னடுக்கிய
பண்ணமை நரம்பின் பச்சை நல்யாழ்
மண்ணார் முழவின் வயிரியர்
இன்மை தீர்க்குங் குடிப்பிறந்தோயே.

(புறம் 164)

குமணன் : புலவர் பெருமானே! தங்களது வேதனை கேட்டு வருந்துகிறேன். எனது உள்ளம் துன்பத்தால் விம்முகிறது. அமைதியாக வாழ்வோரை அவதிக் குள்ளாக்கிவிடும் வறுமையின் கொடுமைதான் என்னே! மாணெழில் அழித்து, மாந்தரது மானத்தைக் குலைத்திடும் இந்த ஒவ்வாப் பிணிக்கு மருந்தே கிடையாதா?

பெருஞ்சாத்தனார் : மாபெரும் வள்ளலே! நீ இங்கு.........வந்தது?.........

குமணன் : ....என்னை சந்தர்ப்பம் சங்காரம் செய்தகாரணத்தால் புலவரே! ஆவலுடன் வரும் தங்களைப்போன்ற அன்பின் திரு உருவங்களுக்கு உதவி செய்ய முடியாத சூழ்நிலையை, இரக்கமில்லாத சந்தர்ப்பம் எனக்குத் தந்திருக்கிறது!

பெருஞ்சாத்தனார் : மன்னா......உனது கதை......

குமணன் : தங்களுக்குத் தெரிந்திருக்கக்கூடும் புலவரே! என் தம்பி இளங் குமணன், என்மேல் அழுக்காறு கொண்டு அதனை வளர்த்துத் தீமை விளைத்தற் குரிய சிற்றினத்தோடு சேர்ந்து நாட்டைக் கைப்பற்றிக்கொண்டு என்னையும் கொல்ல வழி தேடினான். பாவமும் பழியும் இளங்குமணனைத் துன்புறுத்துமேயென்று பரிவுற்ற நான் எவருக்கும் தெரியாது இங்கு வந்துவிட்டேன்.

பெருஞ்சாத்தனார் : வையகம் காணாத தீது! வரலாறு காணாத நிகழ்ச்சி! உடன் பிறந்தோனா இப்படி ஒதியமர உள்ளம் படைத்தவனாக இருக்கின்றான்?

குமணன் : அவன்மீது தவறு இல்லை பாவாணரே! துர்ப்போதனைகள் தந்த, தூய உள்ளமில்லாதவர்களே இவற்றிற்கெல்லாம் காரணம். தாங்கள் நான் கோலோச்சிக்கொண்டிருந்த காலை வந்திருப்பீர்களானால், பன்மணியும், நிதிக்குவை யும் தந்து, அட்டைபோல் ஒட்டிக்கொண்டிருக்கும் பசிப்பிணியைத் தங்களிடமிருந்து அகற்றியிருப்பேன்.

"அந்த நாள் வந்திலை அருந்தமிழ்ப் புலவோய்
இந்த நாள் வந்து நீ நொந்தனை அடைந்தாய்"

பெருஞ்சாத்தனார் : வேந்தே! உனது இளவலின் தன்மை கேட்டு வேதனை அடைகிறேன். அண்ணனுடைய அழகான பண்புகளை எண்ணி எண்ணிப் பரவசப் படவேண்டியவன் படுபாதகம் செய்யத் துணிந்திருக்கின்றானே!

குமணன் : (சந்தோஷத்துடன்) கவிஞரே நான் விரும்புவதைச் செய்வீர்களா? ......எனது விருப்பம்போல் தாங்கள் நடந்துகொண்டால் எனது உள்ளம் குளிரும்!

பெருஞ்சாத்தனார் : ஆகட்டும் மன்னா.

குமணன் : (தனது உடைவாளைக் கையிலேந்தி) இதோ இந்தக் கூர்வாள், தங் களது வறுமையை அழிக்கும் வன்மை படைத்தது! இவ்வாளால் எனது சிரத்தை

அரிந்து, என் தம்பி இளங்குமணனிடம் கொண்டுசென்றீர்களானால், என் தலையைக் கொண்டுவருவோர்க்கு, பரிசுகள் பல தரப்போவதாக பறை அறிவித்த அவன், தங்களுக்கு நிறைந்த பொருள்கள் தருவான். நெஞ்சைப் புண்ணாக்கும் வறுமையை அவற்றால் அழிக்கலாம். உம்...என் தலையைக் கொய்துகொள்ளுங்கள். அப்போது தான் பாசத்துடன் ஓடிவந்த பாவாணருக்கு, பரிசில் வழங்காது திருப்பி அனுப்பிய வனாகமாட்டேன். ஏன் புலவரே பிரமித்து நிற்கின்றீர்கள்?...

பெருஞ்சாத்தனார்: (கலக்கத்துடன்) ஆடிவந்த விறலியருக்கும், ஆதரவு தேடி வந்த பாணருக்கும், ஏத்திப்பாடிய புலவருக்கும், இறைஞ்சிநின்ற மக்களுக்கும், உதாரமோடு பொருட்களை உவந்து அளித்த தார்வேந்தனே! உன் தலையை அரிந்தா நான் தரித்திரத்தை ஓட்டி அதன்மூலம் தரம் உயர்ந்த வாழ்வு பெறவேண்டும்? குடிமக்களது நலனுக்காகவே கோலோச்சிய குணக்குன்றே, கருணைக் கண்கள் படைத்த உன் கவின் சிரத்தைக்கொண்டா நான், என் இல்லக் கலக்கத்தைத் துடைத்து இன்பமாக வாழவேண்டும்? நினைக்கும்போதே உள்ளம் உடைகிறதே!

குமணன்: புலவரே!

பெருஞ்சாத்தனார்: இதோ உன் இளவலிடம் சென்று, கொலுமண்டபத்தை அலங்கரிக்கவேண்டிய கோமேதகம், காட்டின் கண் அவதிப்படவேண்டிய காரணத்தைக் கேட்கிறேன். புழுதி படிந்தும், புனிதத் தன்மை இழந்தும், கிடக்கின்ற அவனது உள்ளத்தை, உண்மைகளை ஏற்கும் உணர்ச்சியைப் பெறச்செய்யா விட்டால் நான் தமிழ்ப் புலவனல்ல. மன்னா நான் வருகிறேன்.

(போகின்றார்)

குமணன்: புலவரே! புலவரே!

மூன்றாம் காட்சி

இடம்: **இளங்குமணனது அரண்மனை.**

காலம்: **முற்பகல்.**

பாத்திரங்கள்: **இளங்குமணன், அவனது நண்பன், அமைச்சரவை.**

(பெருஞ்சாத்தனார் இளங்குமணனிடம் வருகிறார்)

பெருஞ்சாத்தனார்: பொறாமைகொண்ட காரணத்தால் பொல்லாததைச் செய்துவிட்ட இளங்குமணா, நீ தீயவழியில் நடந்துகொண்டிருக்கின்றாய் என்பதை விளக்கவே ஈண்டு வந்துள்ளேன். அழுக்காறுகொண்டு, அறிவை உபயோகிக்க மறுத்தவர்கள் என்ன அல்லல்களை ஏந்தியிருக்கின்றார்கள் தெரியுமா?

இளங்குமணன்: பொறாமை என்ற சொல்லை ஏன் அர்த்தமில்லாமல் உபயோகிக்கின்றீர்கள்? எனக்கும் அந்தச் சொல்லுக்கும் தொடர்பு என்ன?

பெருஞ்சாத்தனார்: தொடர்பு இருந்ததினால்தான், தனிப்பெரும் வள்ளல் குமணன், மனித சஞ்சாரமற்ற ஆரண்யத்தில் வசித்துவருகிறான்!

இளங்குமணன்: புலவரே!

பெருஞ்சாத்தனார்: ஆத்திரப்படவேண்டாம். குமணன் தங்கக் கம்பி! அவன் உனக்கிழைத்த தீமைகள் என்ன? அவன் கானகத்திற்கு ஓடக் காரணமென்ன?

இளங்குமணன்: கொடைக்கு ஒரு வரம்புண்டு என்றறிந்திலாத குற்றமும், புலவர் கூட்டத்தை என்னை வாழ்த்திப்பாடாதவாறு தடுத்த நிகழ்ச்சியும்தான், அவரைக் கானகத்திற்கு ஓடவைத்திருக்கின்றன. தீச் செயல் தன்னுடைய புதை குழியை தானே தேடிக்கொள்ளுகிறது!

பெருஞ்சாத்தனுர் : தேரா மன்னு,

"உண்டால் அம்ம இவ்வுலகம்
தமக்கென முயலா நோன்தாள்
பிறர்க்கென முயலுநர் உண்மையானே!"

என்ற இளம்பெருவழுதியின் இனிய சொற்களை உன் செவி கேட்டதில்லையா? குமணன்போன்ற வள்ளல்கள் இருப்பதாலன்றோ குவலயம் வாழ்கிறது! உன்னைப் புகழ்ந்து பாடாதவாறு புலவர் கூட்டத்தைத் தடுத்தான் என்பதை ஆதாரத்துடன் கூறமுடியுமா?

இளங்குமணன் : என் தமையன் ஒரு புலவரிடம், என்னைப் புகழ்ந்து பாடக் கூடாது என்று கூறியதை என் நண்பன் காதாரக் கேட்டிருக்கிறுன்.

(அவனுடைய நண்பன் மெதுவாக நழுவுகிறுன்)

அதை என் நண்பன் கூறுவான்.

பெருஞ்சாத்தனுர் : அவன் முன்பே ஓடிவிட்டானே!

குமணன் : ஆ!

பெருஞ்சாத்தனுர் : உண்மையாக இருந்தால் உம் நண்பன் நழுவுவானேன். பார்த்தாயா......!

குமணன் : முதாதையர் தேடிவைத்த சொத்தும் முதிரமலையின் வளமும், கொள்ளை போகின்றதை என்னுல் பார்த்துக்கொண்டிருக்க முடியவில்லை.

பெருஞ்சாத்தனுர் : நீர்க்குமிழியொத்த நிலையிலாப் பொருளுக்கா இவ்வளவு ஆசை? மற்றவர்க்கு உதவி செய்யும் மனப்பான்மையிலா மனிதன், பெரு மன்னனுகவும், செல்வனுகவுமிருந்து என்ன பயன்? அவன் நடு ஊருள் நச்சு மரம் பழுத்ததை ஒத்தவன் அன்பு, இரக்கம் இவை இரண்டுமிலாது சேர்த்துவைக்கப் படுகின்ற செல்வம், கள்வராலல்லவோ கொள்ளப்படும்.

இளங்குமணன் : அதற்காக அரசாங்கப் பணத்தை அளவுக்கு மீறிச் செலவிட வேண்டும் என்று எந்த அறிஞனும் கூறவில்லை. அரசாங்க அலுவல்களை மறந்து விட்டு, இரவலர்களை ஆதரிக்கவேண்டும் என்று யாரும் கூறவில்லை.

பெருஞ்சாத்தனுர் : அப்படிக் குமணன் அளவுக்கு மீறிச் செலவழித்திருந்தால், நாடு இன்னலின் இருப்பிடமாகவன்றோ மாறியிருக்கும்! அவன் இரவலர்களை ஆதரித்ததினுல் முதிரமலை நாட்டு நலம் பாதிக்கப்படவில்லையே! தீமைகள் நாட்டைச் சூழ்ந்தனவா? பசிப்பிணி தோன்றியதா? பஞ்சம் இங்கே அடி எடுத்து வைத்ததா? இலம்பாடு காரணமாக இன்னலனுபவிக்கின்றனர் நாட்டு மக்கள், என்று எங்கெங்கிருந்து வேந்தே ஏசல் மொழிகள் ஓடிவந்தன? அறிவின் சிகரங்களான அமைச்சர்கள், கடமைகளினின்று தவறினுர்கள் என்பதை நெஞ்சிலே கை வைத்துக் கழறமுடியுமா? குடி மக்களின் கோரிக்கைகளை, குமணன் புறக்கணித் தான் என்ற சொல் நாட்டின்கண் அடிபட்டதே கிடையாதே!

இளங்குமணன் : அவசரப்படவேண்டாம்! நடந்தவற்றை அமைச்சர்கள் விளக்குவார்கள்.

பெருஞ்சாத்தனுர் : அறிவுரைதரும் அமைச்சர்களே குமணன் குற்றமுடையவன்தானு? ஏன் மௌனமாக இருக்கின்றீர்கள்?

அமைச்சர்கள் : குமணன் மாசில் மன்னர்!

இளங்குமணன் : ஆ!

பெருஞ்சாத்தனார் : அதிர்ச்சியடையாதே இளங்குமணு! உனது அக்ரமங்களுக்கு அஞ்சி வாழ்ந்த அமைச்சரவையின் முடிவைக் கேட்டாயா! குமணன் எல்லோராலும் போற்றப்படும் ஏந்தல்! கொடையிலே மாரியை ஒத்தவன்! இன்னும் கேள், யான் அவனைக் காட்டில் சந்தித்துப் பாடி நின்றேன். நான் பொருளின்றி, வறுமையால் வாடுவது, நாடிழந்த தன் துயரிலும் பெரியதாகக்கருதி வருந்தித் தன்பால் வேறு பொருட்கள் இல்லாததால், தன் தலையை அரிந்துகொள்ளுமாறு அவனது வாளைத்தந்து, "இந்த சிரத்தைக்கொண்டு சென்றால், என் தம்பி, உங்களுக்கு நிறைந்த பொருள்கள் தருவான்" என்று கூறினான்.

மன்னு உலகத்து மன்னுதல் குறித்தோர்
தம்புகழ் நிறீஇத் தாமாய்ந் தனரே
துன்னருஞ் சிறப்பினுயர்ந்த செல்வர்
இன்மையினிரப் போர்க்கீஇ யாமையிற்
றொன்மை மாக்களிற் றொடர் பறியலரே
தாடாழ் படுமணியிரட்டும் பூநுதல்
ஆடியல் யானை பாடுநர்க் கருகாக்
கேடினல் லிசை வயமான் றோன்றலைப்
பாடி நின்றென னாகக் கொன்னே
பாடுபெறு பரிசிலன் வாடினன் பெயர்தலென்
நாடிழந்தத னினு நனியின் னாதென
வாடந் தனனே தலையெனக் கீயத்
தன்னிற் சிறந்தது பிறிதொன் றின்மையின்
ஆடுமலி யுவகையோடு வருவல்
ஓடாப் பூட்கைநின் கிழமையோற் கண்டே.

(புறம் 166)

இத்தகைய குணம் படைத்த வள்ளலுக்குத் தீங்கு விளைவிக்க எண்ணி, அவன் தலையைக் கொய்து வருவோர்க்குப் பரிசில் தருவதாக ஆணை பிறப்பித்த உன் அறியாமையின் தன்மைதான் என்னே!

இளங்குமணன் ; (கண்கலங்கி) ஐயோ பாவலரே! என்னை மன்னித்துவிடுங்கள்! கெடுமதியாளரது துர்ப்போதனையால், தரணிபோற்றும் தனிப்பெரும் உத்தமனை என் தமையனைக் கொல்ல வழி தேடிவிட்டேன்! சாத்தனாரே! நீங்கள்தான் எனக்கு அறிவு கொடுத்த தெய்வம்! இதோ இப்போதே கானகத்திற்குச் சென்று, என் கண்ணீரால் தமையனாரது பாதத்தைக் கழுவி, மன்னிப்புப்பெற்று, அவரை அழைத்து வந்து, அழுக்குப்படிந்து கிடக்கும் இவ்வரியாசனத்தை அழகாக்கி, அதில் அவரை அமரச் செய்கிறேன். வருகிறேன் (ஓடுகிறான்).

பெருஞ்சாத்தனார் : வாழ்க இளங்குமணன்! வாழ்க குமண மன்னர்!!

காலை எழில்

By R. GURUNADHAN, IV B.Sc.

1. கொக்கொக்கோ என்றது கோழி குரல்—வையம்
　　கொடுந்துயில் நீத்து எழுந்ததுகாண் !
செக்கச் சிவந்தது கீழ்வானம்—அங்கே
　　சிரித்து எழுந்தது செம்பரிதி.

2. தண்ணொளி வீசிய விண்மதியம்—அஞ்சி
　　தன்னெழிற் கெட்டுப் பொலிவிழக்க,
பொன்னொளி தோன்ற விண்காட்டினிலே—அங்கு
　　புத்தொளி வீசிற் றிளம் பரிதி !

3. ஓடிஒளிந்தது காரிருள் தான்—எங்கும்
　　ஒளிப்புது உவகையை ஊட்டியது
பாடிப்பறந்த புள்ளினங்கள்—வண்டினம்
　　பனிமலர்ச் சோலையை நாடினவே.

4. பாரினை வாழ்விக்கும் உழவரெல்லாம்—தங்கள்
　　பாட்டினை எண்ணிக் கவலையின்றி,
ஏரினைத் தோளினில் ஏந்திக்கொண்டு—உழ
　　ஏறுநடையுடன் தான் நடந்தார்.

5. அன்ன நடை எழிற் பெண்டிரெல்லாம்—இந்த
　　அவனி விழித்திடுங் காலையிலே,
மின்னலிடையில் குடஞ் சுமந்து—தங்கள்
　　மென்கையை வீசி நடைநடந்தார்.

6. வாவியில் தாமரை மலர்ந்ததுவே—எங்கும்
　　வனப்பொளிர் காட்சி படர்ந்ததுவே !
காவினுள் பன்மலர் சிரித்தனவே—எழில்
　　காலை மலர்ந்தது பொலிவுடனே !

முன்னறி தெய்வமும், மொழியும்

By L. P. KANDASAMY, III U.C.

உலகினை ஆக்கி, அளித்து, அழித்து, மறைத்து, அருளும் பான்மையனாய், பிறவிப் பெருங்கடல் நீந்த உதவும் நல்லதோர் புணையாய், வழுத்துவார்க்கும் வணங்காதவர்க்கும் நடுவில் நின்று வரமளிக்கும் வரமாய்த்திகழ்பவன் அன்புருவாகிய ஆண்டவன். அவனே உலகிற்கு முதல்வன். உண்மையுமாய் இன்மையுமாய் நின்று நாமநீர் வேலி உலகை ஓம்புவானாய், உள்ளிலே மேவும் உயர்தனிக் கொண்டல். எண் பிறக்கொழிய இருப்பவன். அவனே வாழ் வாங்கு வாழும் உயிர்க்கு முதல்வன். அவனை வணங்கல் இயற்கை. ஆனால், முன்னறி தெய்வம் மலர்மிசை ஏகினான் ஆகான் எனக்கருதுமாறு, சங்கமெனும் தொட்டிலிற் கிடந்த தமிழ்க் குழவிக்குத் தாலாட்டுப் பாடும் தகைமை சான்ற தமிழ் மூதாட்டி "அன்னையும் பிதாவும் முன்னறி தெய்வம்," எனக் கூறுகின்றார்.

"உண்மை அதுவாயின், நானிலம் புரக்கும் நமதாண்டவன் முன்னறி தெய்வம் ஆகானா? அவ்வுத்தமன் மங்கலத்தின் நன்கலமாகிய குழவிகள் முன்னறிந்து தொழுதேத்தும் முதல்வனாகானா?" என வினவுதிர் ஆயின், ஆராய்வோம்:

ஈரைந்து திங்கள் அகட்டிலே தாங்கி, தாங்கரும் இன்னல் மேற்கொண்டு, அந்திப்பகலாய் ஆண்டவனை வந்தித்து மனைக்கு ஒளியேற்ற, மனத்திற்கு ஒளி பேற்ற அரும் புதல்வர்களைப் பெற்றெடுக்கின்றாள் நற்றாய். காப்பு, செங்கீரைப் பருவங்கள் சீரிய முறையில் கழிய, வாழ்வு வளமாக்க வந்த குழவி தாலப்பருவம் அடைகின்றது. பச்சைக்குழவி பரிந்து பாலூட்டும் பாவையைத் தன் புன்கண்களால் கண்டு களிக்கின்றது. கூர்ந்து நோக்கிச் சிரிக்கின்றது. பாலுடன் பைந்தமிழையும் பெற்ற தாய் ஊட்டுகின்றாள். பாலின் சுவையுடன் பைந்தமிழின் தீஞ்சுவையையும் துய்க்கின்றது சிறுகை நீட்டிச் சிரிக்கும் செல்வம்.

புறக்கண்ணொடு அகக் கண்ணும் காணுகின்றது அன்னைதனை. அகத்திடை அரும்பும் எண்ணம் வாய் வழி மலர்ந்து "அம்மா" என்ற சொல் மணம் பரப்புகின்றது. ஈன்ற தாய் இணையிலா மகிழ்வு கூர்ந்து "மாசறு பொன்னே! வலம்புரி முத்தே!" எனக் கொண்டாடி முத்தமிடுகின்றாள் சேயின் செங்கன்னங்களில். வாழ்க்கைப் பூங்கா வளம்பெற வன்முயற்சி செய்து பொருளை ஈட்டும் தந்தையினை அடுத்து அறிகின்றது பவளவாய்ப் பசுங் குழவி. குழவியின் பொதிந்த அறிவாம் அரும்பு கல்விக் கதிரவன் மனவானில் தோன்றியதும் நிமிர்ந்து சுரும்பார் மலராகின்றது. எண்ணத்தேன் வழிகின்றது. கற்றதன் பயனை அடைகின்றான் காளை. "மலையிடைத்தோன்றும் ஊற்று விரிந்து வளம்கொழிக்கும் ஆறாகி எல்லைவிரிந்த சமவெளி எங்கும் இறங்கித் தவழ்ந்து தவழ்ந்து ஆழியிறைவனை அடைதற்போல, உலகிடைத் தோன்றிய உயிர் வையத்துள் வாழ்வாங்கு வாழ்ந்து வானுறை இறைவனடி சேர முயற்சிசெய்தல் வேண்டும்" என அறிந்து அவன் செயலாற்றுகின்றான்.

தாயின் மடியிலே தவழ்ந்து விளையாடுங்காலைப் பெற்ற தாயும் பெருமை சான்ற தந்தையுமே அவன்காணும் தெய்வங்கள். ஆகவேதான் அன்னையும் தந்தையும் முன்னறி தெய்வம், கண் கண்ட தெய்வம். இறைவன் எண்ணம்

காணும் தெய்வம். இது அடுத்து நிகழ்வது. சிந்தித்தல் மகனது கடமை. இந் நிலை அறின் மக்கள் மாக்களாகின்றனர். தாய் தவநிறை பேறு உற்றவள். நம் கண் காணும் தெய்வம். எண்ணத்துறையும் ஏந்திழை. இதன் வழி நம் உயிராகின்றாள். பெற்ற தாயைப் பேண மறக்கின், அவள் சாலப் பரிந்து காட்டும் நன்னெறி செல்ல மறுக்கின், அவள் பகரும் பயனுடைய சொல்லை மறுத்து எதிருரை விளம்பின், அவள் மனம் படும் பாடு யார்தான் கூற வல்லார்? கல்லும் கரைந்துருகுமே! தாயற்ற பிள்ளைகளின் முகம் கண்டாவது தவத்தால் தாயினைப் பெற்றோர் சிந்தித்தல் உறுவார்களாக.

இளங் கன்று "அம்மா" என்ற தன் தாயின் அழைப்பைக் கேட்டவுடன் அதன் அண்டையில் ஓடுகின்றது. ஆனால் பெற்றதாய் இடுக்கணுற்றகாலை அல்லது ஏவல் விடுக்க "அப்பா" என்று அழைக்குங்காலை சென்றுதவும் செம்மைசேர் மக்கள் எத்தனை பேர்? மொழியினைக் குளறும் நமது வாய் முதலில் உரைப்பது "அம்மா" புண்ணிலாம் பெரும் புழையில் எரி நுழைந்தா லென்னத் துயர்ப் படுங்காலை நமது வாய் விளம்பும் மொழி "அம்மா". நமது அச்சத்தை அறிவிக்கும் சொல்லாக நிற்பதும் "அம்மா" அடியார் ஆண்டவனை நோக்கி விளிப்பது "அம்மையே! அப்பா!" பல்லெல்லாம் தெரியக் காட்டிப் பருவரல் முகத்திற் கூட்டி அறவோர் புறங்கடை நின்று, இரவோர் அழைப் பது "அம்மா! தாயே!". அம்மா எனுஞ்சொல் செவியிலே இன்பத்தேன் பாய்ச்சுகின்றது; வாயிலே அமிழ்தத்தை ஊற்றுகின்றது; உள்ளத்திலே தீஞ் சுவை கொடுக்கின்றது.

முன்னறி தெய்வத்திற்குத் தாயாக விளங்குவது தாய்மொழி-தமிழ் மொழி. நாமமது தமிழரெனக்கொண்டு வாழ்கின்றனர் பலர். கல்லும் கனிந்து கனி யாகும் வண்ணம் பண்ணோர் பாட்டிசைக்கும் பாரதி, "தமிழ்த்திரு நாடு தன்னைப் பெற்ற தாயென்று கும்பிடடி பாப்பா" எனக் கூறிப் போந்தார். பெற்ற தாயும் பிறந்த பொன்னாடும் நற்றவ வானில் நனி சிறந்தன என்பதன்றோ தெள்ளு தமிழ் சுவைக்கும் பெற்றியர் கோள். கொள்கை மறந்தனர் தமிழர். அதனால் நீலத்திரைகடல் ஓரத்திலே நின்று நித்தம் தவம் செய் குமரிமுதல் விண்ணையிடிக்குந்தலை இமயம் வரை தன்னேரிலா நடை பயின்ற தமிழணங்கு தனக்கே உரித்தான எல்லையினும் குறுகி நனி துன்பமுற்று வாடுகின்றாள். தமிழ்ப் பற்றுக்கொண்ட எல்லா மக்களும் அவள் சேய்களே.

சோழ பாண்டியரை இகழ்ந்து வெறுஞ்சொல் நவின்றதற்காக வடநாடு சென்று ஆரிய மன்னர்களை வென்று செருக்கை அடக்கிய குமரியொடு வட இமயத்து ஒரு மொழி வைத்து உலகாண்ட நெடுஞ்சேரலாதன் மரபுறு செங்குட்டுவன் பரம்பரையிலே வாழையடி வாழையாக வந்த தனித்தமிழ்க் கூட்டமல்லவா நாம்! ஆகவே என்றும் எழிலினிமை பெறும் கன்னித் தமிழ்த் தாயின் நலன் நாடுங்கள். நாடி அவள் புகழைச் செயல்மறந்து பாடுங்கள். தமிழன்னையின் தளை உங்கள் மொழிப் பற்றெனும் படையால் தகர்ந்து தூள் தூளாகட்டும். மெலிந்த அவள் பாதங்களை உங்கள் முடிமேல் தாங்குங்கள். அவள் புத்தாடை புனைந்து புதுவணி பூண்டு சிறந்து தோன்ற உங்கள் செய லெனும் நூலும், அறிவெனும் பொன்னும் உருவாகட்டும். எண்ணம் நிறை வேறட்டும். தெருவெல்லாம் தமிழ் முழக்கம் செழிக்கவேண்டும். இல்லெல்லாம் தாயன்பின் முழக்கம் முழங்கவேண்டும்.

வாழ்க ஈன்ற தாய்! வாழ்க தமிழ்த் தாய்!

வாழ்க சுயநலம்!

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இந்நாட்களில் திடீர்வேட்டுகள் சர்வ சாதாரணமானவை; துப்பாக்கிகளும், பீரங்கிகளும் மட்டுமன்றி, பலரது பேனாமுனைகளும் திடீர் வேட்டுகளை உற்பத்திசெய்யும் 'உன்னத' அலுவலில் ஈடுபட்டுள்ளன. "அத்தகைய வெற்று வேட்டுகளில் ஒன்றுதானோ இக் கட்டுரையும்" என்று அன்பர்கள் எண்ணுவதற்கு இந்தத் தலைப்பு காரணமாயிராது என்ற உறுதியோடு தன் பயணத்தைத் தொடங்கியுள்ளது எனது பேனா!

"மனிதத் தன்மைக்கே முரணானது சுயநலம், அதனால் சமுதாயத்திற்கு விளைந்த கேடுகள் எண்ணற்றவை.—வரலாற்று ஏடுகள் பல இதற்குச் சான்று பகர்கின்றன" என்று பொதுநலவாதிகள் சுயநலத்தைத் தாக்கி வருவதுமன்றி, அதற்கு அழிவுப்பட்டியலிலே ஓர் அங்கமும் தந்துவிட்டனர். இதனால் சமூக எதிரி என்ற பட்டத்தோடு குற்றவாளிக்கூண்டிலே நிறுத்தப் பட்டுள்ளது சுயநலம். நெடுங்காலமாகியும் இந்த வழக்கு இன்னும் தீர்ப்பாகி முடியவில்லை. ஏனெனில், குற்றவாளியின் தரப்பில் ஆராய்ச்சியாளர்களும், பொதுநலவாதிகளின் தரப்பில் வரலாற்று ஆசிரியர்களுமிருந்து வாதம் செய்கின்றனர்; ஏற்றுக்கொள்ளக்கூடிய பல உண்மைகள் இருதரப்பிலும் உள்ளன. சுயநலம் குற்றவாளி என்று முடிவுகட்டுவது எளிது; ஆனால், அது குற்றவாளி அல்ல என்று மறுத்து அதை நிரூபிப்பதுதான் கடினம். இவ்விரண்டில் கடினமான ஒன்றையே கட்டுரைப் பொருளாகக்கொள்வோம்.

'நான்', 'எனக்கு' என்பது சுயநலம். அவையே விரிந்து 'நாம்', 'எமக்கு' என்று உருப்பெறுமானால் அது நன்மையானதுமட்டுமல்ல—போற்றுதலுக்கு உரியதுங்கூட. இந்த நிலையில்தான் நம் சுயநலம், 'பொது நலம்' என்று பெயர் பெறுகின்றது. அந்த வேறு பெயரை ஒதுக்கித் தன் வழியிலேயே ஒரு பெயர் தேவையானால், மேற்கூறிய நிலையை 'விளக்கமுற்ற சுயநலம்,' என்று குறிக்கலாம். இந்த 'விளக்கமுற்ற சுயநலம்,' நம் தமிழகத்தைப் பொறுத்தவரை எவ்வாறு பயனுடையதாயுள்ளது என்று கவனிப்போம்.

தன்னலம் நாடும் ஒருவன், தனது வாழ்வின் பழைய ஏடுகளைப்புரட்டி நன்மை தீமைகளுக்கேற்ற வகையில் நல்ல திட்டம் ஒன்று வகுப்பதுபோல, தன் நாட்டு நலம் காணப்புகும் ஒருவன் அதன் தொன்மையை ஆழ்ந்து நோக்கி, அதை நிகழ்காலத்தோடு பொருத்தி அவற்றுள் காணும் ஏற்றத் தாழ்வுகளைக் கண்முன் வைத்து, எதிர்காலம் ஏற்றம் பெறும் வகையில் ஆவன செய்ய முற்படவேண்டும். இங்குதான், ஏதிலார் குற்றம்போல் தன் குற்றம் காணும் திறமை ஒருவனுக்கு அதிகம் வேண்டும். அத்தகைய நடுவுநிலை ஆராய்ச்சியில் பழமையும் புதுமையும் இருமுனைகள். பழமைப் பற்று பாட்டிகளின் சொத்து; புதுமைப் போர் புரட்சிவீரர்களின் தொழில். இவ்விரு முனைகளுக்கும் இடைப்பட்டுச் செயலாற்றுவதுதான் வரலாற்று ஆராய்ச்சியாளர்களின் வேலை. கற்காலத்தையோ, தற்காலத்தையோ

ஆராயப்புகும் ஒருவன், ஒன்றின் கண்கொண்டுதான் மற்றதை நோக்கு கிறான். இதனால் ஒப்புமைக்கு வழியாகிறது. இவ்வாராய்ச்சியின் பயனாக ஒவ்வொன்றின் குறைகளும் நிறைவுகளும் தெளிவாகின்றன. அவற்றுள் போலிக் குறைகளோ, கற்பனைக் குறைகளோ காணப்படுமாயின் அது ஆராய்ச்சியின் குறையேயன்றி முறையாகாது.

தமிழகத்துப் பழங்குடிகளின் வாழ்வு இன்றைய கண்களுக்கு ஒரு விநோதப்பொருள்; இதற்குக் காரணம் பழங்காலத்திற்கும் தற்காலத்திற்கு முள்ள அடிப்படை வேற்றுமை. அன்றைய மக்கள் வாழ்வதற்கேயன்றி, பிழைப்பதற்காக வாழவில்லை. இன்றைய நிலையோ அதற்குமுற்றிலும் மாறுபட்டது. தன் தேவையைப் பூர்த்திசெய்யவேண்டும் என்ற முயற்சி யின் அடிப்படை, உயிர் வாழவேண்டுமென்ற உயிர்ப்பற்றேயாகும். அதன் விளைவாக மனிதன் தவறான பிழைப்பு வழிகளை மேற்கொள்ளக்கூடாது. பிழைத்தல் என்ற சொல்லே பிழைசெய்தல் என்று பொருள்படுகிறது. ஆகவே பிழைத்துப் பிழைக்கவேண்டுமென்பது மனித வாழ்வுக்கு ஏற்றது மில்லை; முறையுமில்லை. இதை அறிய முற்படாத இன்றைய வாழ்வு நிலையே தவறுடையதாயுள்ளது.

அன்றைய வாழ்வு இயற்கையோடியைந்த வாழ்வு; அதனால் இன்பம் பெருத்த வாழ்வு. இன்றைய வாழ்வோ இயந்திர வாழ்வு; அதனால் நிம்மதியற்ற வாழ்வு. உதாரணமாக, அன்று சேவலும், காகமும் விடியற் கால அறிகுறிகளாகத் தொண்டாற்றின. இன்று அவற்றின் இடத்தில் இயந்திரங்கள் அமர்ந்துள்ளன. அன்று வான்முட்ட உயர்ந்து முகில்துஞ்சும் சிகரத்தோடு, தாழ்வறு நிலையில், அழகை அணியாய்ப்பெற்று எவற்றையும் மிஞ்சிய பெருமிதத்தோடு விளங்கிய வரைகளின் காட்சி மனித உள்ளத் தில் உவகைப்புனலை ஊற்றெடுத்து ஓடச்செய்தது; பகலவன் ஒளியில் வெள்ளியை உருக்கி ஊற்றினாற்போன்ற அருவிகளின் காட்சியும், தங்கத் தகடென மின்னும் நீர்நிலைகளும், அவற்றினூடே அழகுத் திலகமாய்த் திகழும் கமலக்கொத்தும் மனிதன் தன்னையே ஒருகணம் மறக்கச்செய்தன. இராக்காலங்களில் விண்மீன்களாலான மாலையில் திங்களாகிய பதக் கத்தைக் கோத்து நீலவானத் தட்டிலே வைத்து இயற்கையன்னைக்கு அளித்த காட்சியின் தெவிட்டாத இன்பத்திலே ஆழ்ந்திருந்தனர் அன்றைய மக்கள். இத்தகைய இன்பங்களை அளித்த இயற்கையை ஏத்துவதிலே பொழுது கழிந்தது. இதனால் அன்றைய சமூகத்திற்குப் பணிபுரிவதில் இயற்கை தவறவில்லை. ஆனால் இன்றைய சமூகமோ எதையும் சொந்த முயற்சியால் சாதிக்கப்பார்க்கிறது. இயற்கையை வென்று தன்னடிப்படுத் தப்பார்க்கிறது. நாகரிகத்தின் மினுமினுப்பிலே எவ்வளவுதான் திளைத் திருப்பினும் மனிதனது எண்ணங்களையும் உணர்ச்சிகளையும் இயற்கையின் வலிய ஆற்றல் வென்றுவிடுகிறது; இதை ஏற்க மறுக்கும் இன்றைய சமூகம் இயற்கையை மதியாத வகையில் வாழ முற்படுகிறது. மதியாதார் தலைவாசல் மிதிக்கவேண்டாம் என்றபடி இயற்கையும் தன் கடமைகளை மாற்றியமைத்துக்கொள்கிறது. இதன் விளைவாக, தேனும் பாலும் கலந்து ஓடிய ஆறுகளில் இன்று நீர் ஓடினால் அதை மக்கள்வந்து வியப்போடு காணும் வறட்சிநிலை குடிகொண்டுள்ளது.

அன்று மன்னன் ஒருவன். மக்கள் யாவரும் அவனது குடிகள். 'மன்னன் எவ்வழி குடிகள் அவ்வழி' என்ற நிலை இருந்தது. குடிகள்

யாவரும் தத்தமக்குரிய தொழில்களிற்பயின்று அவற்றால் ஊதியம்பெற்று வாழ்ந்தனர். இன்றைய நிலையோ இதற்கு முற்றிலும் முரண்பட்டது. இன்று எல்லோரும் மன்னர்கள். ஆளப்படுவோர் இன்மையாலும், மன்னர்கள் தாம் ஏன் உழைக்கவேண்டும் என மாறுபட எண்ணியமையாலும் அலுவலற்ற மன்னர்களின் தொகை நாளுக்குநாள் அதிகமாகிவருகிறது. அதனால் பசியும் பட்டினியும், பிணியும், பிணக்கும் அன்றாட நிகழ்ச்சிகளாகிவிட்டன; செய்வதறியாத சில மன்னர்கள் மேடைப் பேச்சிலும் அரசியற் போராட்டத்திலும் தலையிட்டுக் காலந்தள்ளுகின்றனர். மன்னர்களாகிவிட்ட இன்றைய மக்களின் முதுகுவளையை மறுக்கிறது. நிமிர்ந்த நிலையிலே வாழ விரும்புவது சரியல்ல; முறையல்ல.

இனிப் பழங்கதை பேசுவதைச் சற்று நிறுத்திவைத்துக்கொண்டு ஆகவேண்டியவற்றைத் தாமதமின்றிச் செய்ய முற்படவேண்டும். பேச்சிலே கழியும் நேரத்தைக் குறைத்து, செயலாற்றுவதில் சிரத்தைகொள்ள வேண்டும்; எக்காரியத்தையும் முன்னேற்ற வெறிகொண்டு செய்ய வேண்டும். எதற்கு எது காரணம் என்ற ஆராய்ச்சியைவிட்டு, எதற்கு எது வழி என்று கண்டு அதன்படி ஒழுகவேண்டும். இத்தகைய எண்ணங்கள் உருப்பெறுமானால்,

"பருவமழை தவறாது பெய்யவேண்டும்,
பயிர்களெலாம் செழித்தோங்கி வளரவேண்டும்,
தருமநெறி தவறாது தழைக்கவேண்டும்,
சாதிமதச் சண்டையெலாம் ஒழியவேண்டும்,
திருமகளும் கலைமகளும் சிறக்கவேண்டும்,
தேசாபிமான மெங்கும் திகழவேண்டும்,
கருமமெலாம் நற்கருமமாகவேண்டும்,
காந்திமதி நின்னடிகள் வாழ்த்தினேனே!"

என்ற கவிமணியின் வாழ்த்து வாழ்வு பெறும்.

இவ்வாறு நமது சமுதாயத்தின் மேடுபள்ளங்களைச் சமப்படுத்தப் பேருதவிபுரியும் இந்தச் சுயநலத்தை வாழ்த்தாமலிருக்கமுடியுமா?— ஆகவே, 'வாழ்க சுயநலம்' என்று இன்னொருமுறை கூறிக்கொள்ள விரும்புகிறேன். தவறாயின் அறிஞர்கணம் மன்னிக்கவேண்டுகின்றேன்.

Liquid Helium II
The Superfluid

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1. INTRODUCTION

MATTER in bulk can exist in three states of aggregation, gas, liquid and solid, as is well known by the experiences of daily life. But a fourth "superstate" has come to be recognised of late. Matter in this state passes through the tiniest of orifices more easily than any gas, but weighs a thousand times as much as the heaviest gas! When taken in a vessel, it flows out simply by creeping over the walls of the container in the form of a film, against all known laws of gravity! Fortunately, this superstate is so far found to be confined to only one substance and that too at the lowest temperatures attainable. This peculiar substance, liquid helium II, presents itself as a very fertile field for many researches.

2. DISCOVERY

In 1911, Kamerling Onnes, the pioneer in low temperature physics, found that liquid helium showed a change of sign for the coefficient of ex-

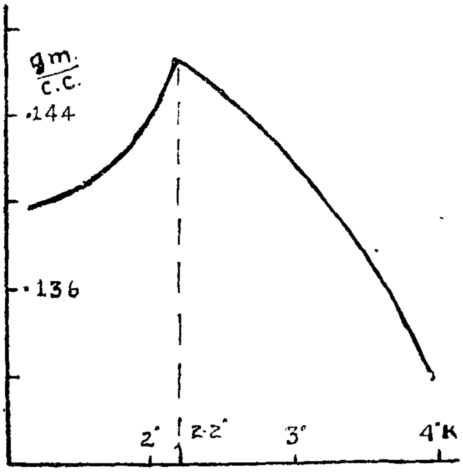

FIG. I. Density of liquid helium

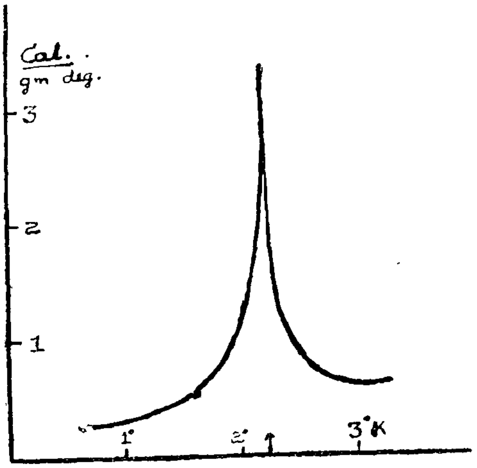

FIG. 2. Specific heat of liquid helium

pansion and a maximum density at about 2·2°K. But accurate measurements were made, only in 1924, by him and his collaborators and the experimental data for the density of liquid helium gave a result as shown in fig. 1. This anomalous behaviour of liquid helium was subjected to further researches by Keesom and his co-workers. They investigated the heat of vaporisation, specific heat, dielectric constant, etc., in the neighbourhood

of 2·2°K and got similar anomalies. The matter was put beyond doubt by the measurements of specific heat, the results of which were as shown in fig. 2. Keesom concluded that there should be two states of liquid helium, one existing above 2·18°K, now called *liquid helium I*, and the other *liquid helium II*, below that temperature. The change over at 2·18°K was called the *lambda* (λ) *transition* by Ehrenfest, since the curve of specific heat variation resembles the Greek letter lambda. (cf. Fig. 2).

Helium was solidified, in 1926, by the application of pressure by Keesom. Extended researches by Simon and others brought about the following salient points, shown in fig. 3. The λ transition happens at a lower temperature as the pressure is increased and is at 1·78°K when the equilibrium melting pressure is reached. The melting curve shows no tendency to meet the vaporisation curve at all. Comparing this with the usual curves for other substances, one sees that there is no triple point for helium ; that is, it cannot be solidified by reducing the temperature. Indeed, at 50°K (ten times the critical temperature) helium can be solidified at 8000 atmospheres. Thirdly, the melting pressure curve shows a steep fall of its gradient near 1·8°K. These unusual properties of the melting curve, however, gave the clue to the understanding of the nature of the λ transition.

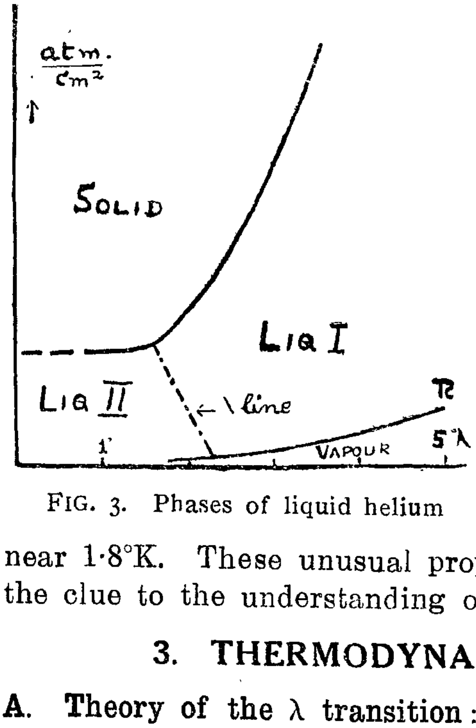

FIG. 3. Phases of liquid helium

3. THERMODYNAMICS OF LIQUID HELIUM II

A. Theory of the λ transition :

Whereas, in an ordinary thermodynamic transition, such as the fusion of ice, there is always a change in volume and entropy, as shown in fig. 4 with dotted lines, this is not the case in the λ transition, for which the discontinuity appears not in V or S but in their slopes and hence in the second derivatives of the thermodynamic potential.

These considerations, together with the curious properties of the melting pressure curves led Ehrenfest to construct a scheme of a *phase change of the second order*, that is, a discontinuity in the second order derivatives of the Gibbs' function. The theory gives, analogous to the Clausius—Clapeyron equation of the first order phase change, an equation

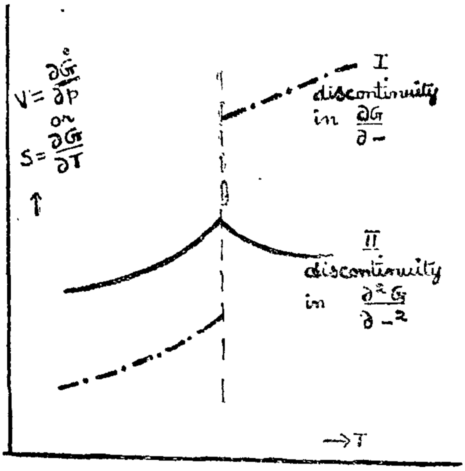

FIG. 4. I and II order transitions

$$\frac{\Delta p}{\Delta T} = \frac{C_{p1} - C_{p2}}{TV(\alpha_2 - \alpha_1)} \text{ where } \alpha = \left(\frac{\partial V}{\partial T}\right)_p$$

Applying this to the λ transition, we have $\left(\frac{\Delta p}{\Delta T}\right)_\lambda = -82 \times 10^6$ dynes. cm^{-1} deg^{-1}. $C_{p2} - C_{p1}$ [at 2·194°K and 2·188°K] $= 7{\cdot}4 \times 10^7$ erg. gm^{-1}, $\frac{1}{V} = 0{\cdot}146$ cm^{-3} and so $(\alpha_2 - \alpha_1)$ is found to be $-0{\cdot}061$ cm^3 deg^{-1}. The experimental value as given by Onnes is $-0{\cdot}06$. The excellent agreement shows the correctness of the theory. Thus the observed discontinuities in specific heat, density etc., are consequences of this second order phase change. It may be pointed out that the transition from the normal state to the superconducting state and the Curie-point transition of magnetism are further examples of this type of transitions.

B. Liquid Helium and the Third Law of Thermodynamics:

We have seen that the melting pressure curve shows no tendency to meet the vapour pressure curve. The former curve indicates also a very marked change near $T_\lambda = 1{\cdot}8$°K just above which the gradient is 34 atm./deg. while just below it is only 7 atm./deg. as shown in fig. 5. Applying the Clausius-Clapeyron equation to the melting process $\left(\frac{dP}{dT}\right) = \frac{S_L - S_S}{V_L - V_S}$ (the subscripts L and S referring to the liquid and the solid states respectively), we see that since $V_L - V_S$ is not zero, the change in entropy at melting vanishes as the absolute zero is reached. Now, as both the liquid and solid heliums can coexist at 0°K, this forms the most conclusive proof of the third law of Thermodynamics, the recent formulation of which, runs as "The difference in entropy between all those states of a system between which a reversible transition is possible, in principle even, at the lowest temperature, tends to zero as the temperature reaches the absolute zero." This means that the absolute zero of temperature cannot be reached even theoretically.

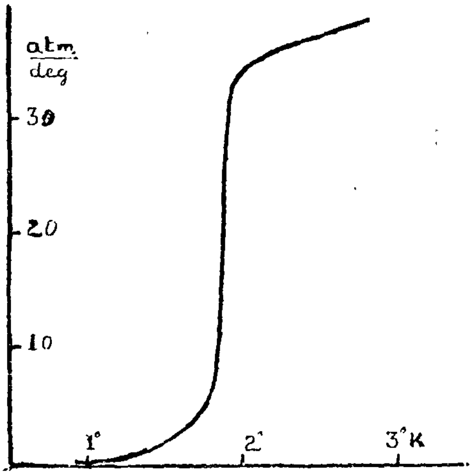

FIG. 5. $\frac{dP}{dT}$ vs. T at melting of solid helium

Another point which must be emphasized, is that since the entropy statistically pictures the orderliness of the motion and since the difference in entropy between the solid and liquid helium II vanishes as T → 0°K, we must conclude that the liquid helium II has the same orderliness as solid helium. This is very surprising because the former is a mobile liquid while the latter a definite crystalline solid. In fact, as we shall see later, liquid helium II is perfectly ordered in the momentum space and this orderliness is the cause of its strange behaviour.

4. MODELS OF LIQUID HELIUM II

The very strange properties of liquid helium II naturally raise the question of the cause of such behaviour. Liquid helium II, for example, shows a vanishing viscosity; it can propagate two types of wave motion, the first and second sound; it can form a film against gravitational forces and literally climb out of the container; it has, besides, anomalously high thermal conductivity and exhibits many curious thermomechanical effects. All these interesting properties, together with the fact that it is as ordered as the solid itself, have led to the conception of different models that might represent the peculiar mechanism of liquid helium II.

(i) ***London—Tisza Model:*** The first model to interpret the behaviour of liquid helium II was due to F. London (1938) who proposed that liquid helium II was a condensed Bose-Einstein gas. The condensation of a Bose-Einstein gas consists in a finite fraction of the constituent particles dropping into the lowest energy levels where they are characterized by a single momentum. This corresponds to a third order phase change and below the degeneracy temperature given by the peak of the specific heat curve, the condensation takes place rapidly. Taking the degeneracy temperature, $(2\pi mkT)^{3/2}/nh^3 = 1$, we get $T_\lambda = 3{\cdot}13°K$ which is not far from 2·2°K. This appears to confirm the theory proposed, chiefly considering the fact that liquid helium II is by no means, a perfect gas. Tisza, assuming that the condensed part acted as the superfluid, was able to explain many of the observed properties.

But this model has been found inadequate. For, theory demands a less marked change in specific heat and a rather different variation of entropy and of the superfluid component density. By an "ad hoc" choice of the superfluid density function, London was able to follow the experimental specific heat curve, but this introduces serious difficulties about the state of condensation at 0°K. These reasons forced London to abandon the perfect gas statistics and to allow for the interaction between the particles. Several investigators have developed this idea and Friedman and Butler have calculated T_λ as 2·6°K. Still the theory remains imperfect, since it does not at all explain the T^3 variation of specific heat below 0·6°K.

(ii) ***Landau Model:*** Following a phenomenological approach, Landau suggested that the essential point in understanding liquid helium II was that it remained a liquid right up to 0°K. At 0°K, it would be in its ground state free from vortex motions. Such vortices quantized and called '*rotons*' would require a definite positive energy Δ for excitation, just as quantization of angular momentum in atomic systems leads to discrete energy levels. These vortices would increase the entropy of the system so that excitation of the vortices would represent (on the temperature scale) the heating up of the liquid. This excitation can be done also by sound energy quanta or '*phonons*'.

Taking the energy spectrum of the rotons of linear momentum p and mass μ as $E = \Delta + \frac{p^2}{2\mu}$ and treating Δ and μ as adjustable parameters, Landau was able to explain the specific heat curve of liquid helium II below T_λ. Indeed, at the T^3 region, theory gives $C_p = 4{\cdot}4 \times 10^{-3} \times T^3$ cals/gm. deg., while the experimental value is $5{\cdot}5 \times 10^{-3}\, T^3$. Landau further assumed that the ground and excited states correspond to the super and normal fluids respectively. Since the excitations can be reflected or scattered, the excited liquid exhibits viscosity. The unexcited fluid, requiring a quantum of energy for excitation, will not react with the walls of the vessel, so that it acts as the superfluid. Calculating the temperature where the whole liquid is excited, it is found that this occurs at about 2·4°K, which Landau associated with T_λ.

It must be borne in mind that the phrase 'two fluid' should not be taken literally; there is only one fluid, wherein, however, because of the very low temperature, all the modes of motion are not excited. Although Landau's theory has been widely used, it says little about the λ-transition. It explains the specific heat below T_λ but does not predict any discontinuity at T_λ. Also the question of rotons cannot be approached from first principles. Quite recently (1953), Thellung has given a solid basis for Landau's theory by quantising the hydrodynamical field containing vortices. His Hamiltonian consists of a phonon term, a roton term and an interaction term. But further calculations have not been performed yet.

(iii) ***Green-Born Model:*** Following the quantum formulation of the kinetic theory of liquids by Born and Green (1947), Green sought to explain liquid helium II as a quantum fluid. The distinctive feature of this theory is the difference between the thermodynamic pressure p given by $p dV = dW$ the work done in moving a boundary and the kinetic pressure p_1 whose gradient determines the mean acceleration of the molecules. In fact, $p = p_1 + p_3 + p_5 + \cdots$, the terms p_3, $p_5 \cdots$ being due to internal angular momentum, etc. Green showed that ordinarily $p_3 \simeq 0$, while if p_3 becomes comparable to p_1, the motion of the fluid becomes abnormal. This happens when energies of the order of $\frac{h^2}{2\pi^2 m r^2}$ (r = interatomic distance for which the potential energy is a minimum $\simeq$ 3A° for helium) are excited. The corresponding temperature $T = \frac{h^2}{2\pi^2 m r^2 k} \simeq 2{\cdot}3$°K, which Green identified with T_λ. Below this temperature, thermal waves arise and these propagate heat and mass in opposite directions. The anomalous specific heat and density are attributed to their presence. In this theory, the two-fluid model is all but rejected.

Though attractive as well as backed by solid mathematical foundations, this hypothesis also does not say anything about the nature of the λ discontinuity, except that it should exist. Further, several authors have questioned the very basis of the theory since they find $p = p_1$. In addition,

X-ray analysis does not show a change in the radial distribution of the atoms at T_λ, as is demanded by Green's theory.

(iv) ***Feynmann Model :*** An essentially new approach to the understanding of liquid helium II has been initiated by Feynmann (1954). Starting from the fundamental wave function of the helium atom (known from the works of Kirkwood and Slater) it is possible to develop the partition functions. The result turns out that even large interaction forces do not alter the nature of the Bose-Einstein condensation. On this theory, Feynmann has tried to answer (*a*) why the λ transition exists and what its nature is and (*b*) what the behaviour of the liquid is below T_λ. As regards the first question, Feynmann has been able to show that the λ transition is a Bose-Einstein condensation. In fact, refined calculations by Chester yield $T_\lambda = 2{\cdot}3°K$. The second question is fairly complex and very little progress has been made so far. But Feynmann has calculated the behaviour at very low temperatures ($T \rightarrow 0$) and finds excellent agreement in specific heat, superfluid density, etc. The agreement is all the more convincing, as the calculations involve only the fundamental constants h, e, m, c, etc.

5. PROPERTIES OF LIQUID HELIUM II

(i) **Superfluidity** :

One of the properties of liquid helium II to be discovered first was that it could flow with utmost ease through very narrow orifices. The early observations of Allen, Meissner, Kapitza and others established the characteristics of the flow, viz. the volume flowing is independent of the pressure head or the length of the path. The rate of flow through narrow channels was decidedly anomalous and the upper limit for the viscosity was put as 10^{-11} poise, whereas liquid helium I just above the λ point has a viscosity of 10^{-5} poise. The almost vanishing viscosity of liquid helium II is the cause of its anomalous flow, which is usually called '*superfluidity*'.

But when the viscosity determinations were made with an oscillating disc, the value came out to be 10^{-6} poise. Very careful measurements prove that the value shows a small temperature variation. Just below T_λ it is 2×10^{-6} poise, while liquid helium I just above T_λ has a viscosity of about 7×10^{-5}, thus indicating essential continuity. But the important point is that the viscosity thus determined is about 10^5 times higher than the value obtained from the flow data. This glaringly contradictory result was removed by the two fluid model of Tisza, Landau and others. According to it, the bulk of the liquid consists of two parts—the superfluid and the normal component. The superfluid has zero viscosity and it is this which takes part in the flow through narrow channels. In the case of flow through wide channels, the viscosity of the normal fluid is measured. This not only explains the contradiction, but also furnishes a means of determining the ratio of the normal component density ρ_n to the

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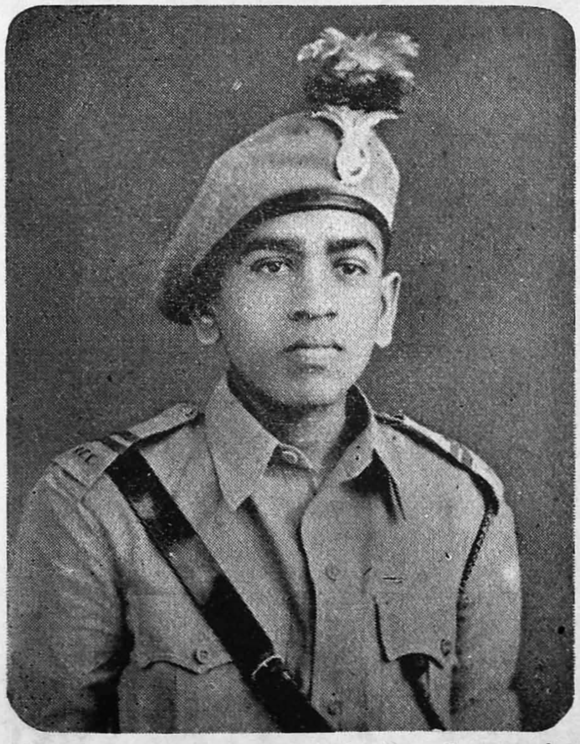
FINALISTS IN THE CENTENARY BASKETBALL TOURNAMENT
The Old Boys' Team and the College Team



N. C. C.

Snr. U/o. Srinivasaraghavan, R. Best Cadet
2nd Madras Bn. NCC. 1955—'56

U/o. Sundararajan, N. R. Best Guard Commander
2nd Madras Bn. NCC. 1955—'56

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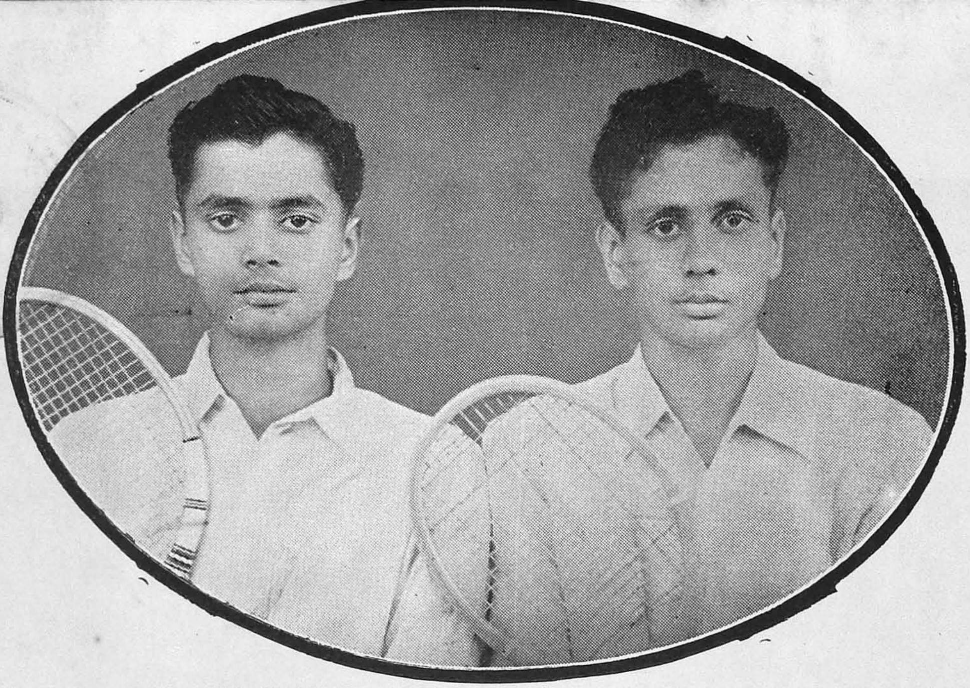
MADRAS

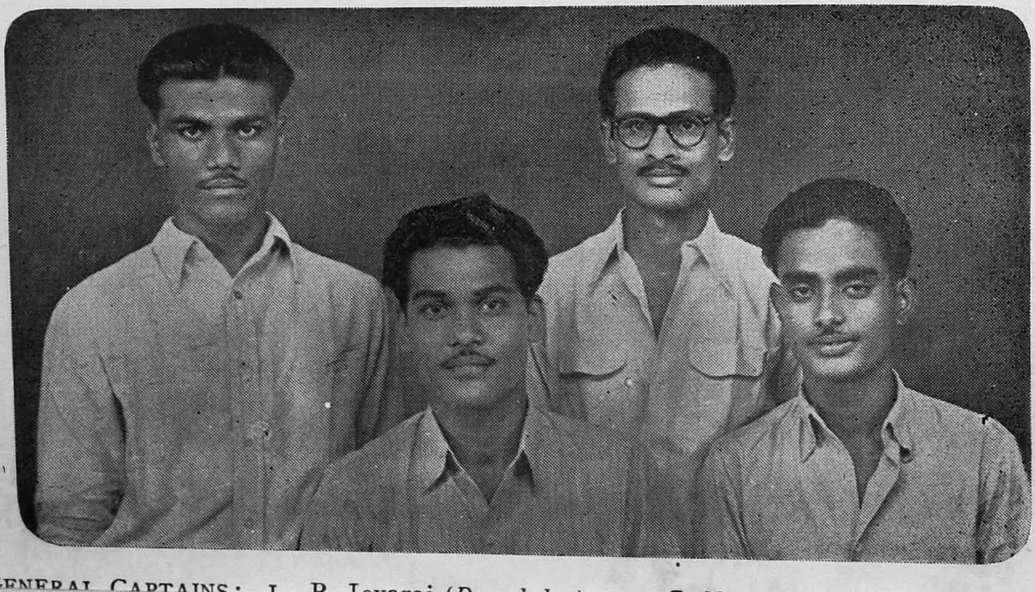


M. V. Krishna Kumar and S. R. Sridharan

Winners in the Inter-Collegiate Divisional Tournament and the All-India Hard Court Junior Championship and Runners-up in the Inter-Divl. Tennis Tournament (Doubles).

Captain of the Old Boys' Team receiving the Centenary Basketball Cup. (55-'56)

New Hostel G. C. receives the Pruvôt Cup



General Captains: 1. P. Jeyaraj (*Dayscholar*) 2. G. Narayanaswamy (*New Hostel*)

total fluid density ρ. The experiments were conducted by Andronikashville on a suggestion from Landau. A pile of plates, the distance between the adjacent ones being of the order of 10^{-4} cms, was made to oscillate in liquid helium II and the apparent moment of inertia determined. In this case, only the normal component was carried along with the pile so that the ratio $\frac{\rho_n}{\rho}$ can be evaluated. Varying the temperature of the bath, the temperature variation of $\frac{\rho_n}{\rho}$ was determined and the results were expressed as $\frac{\rho_n}{\rho} = \left(\frac{T}{T_\lambda}\right)^\sigma$ where σ is 13 for the range 2°K to 1°K and only 4 from 0·7°K to 0·2°K. London's theory gives $\sigma \simeq 5{\cdot}5$. The ratio $\frac{\rho_n}{\rho}$ thus determined agrees well with the values obtained from second sound measurements.

The mechanism of the superfluid flow has aroused considerable interest because the ordinary Stokes-Navier hydrodynamical equations fail completely to explain the phenomenon. Mendelssohn and his co-workers have investigated the pressure gradient in the capillary tube where the flow takes place. Apparently no pressure gradient is required when the velocity of the flow is less than a critical value. There is some evidence to show that the superfluidity is connected with the film flow.

(ii) **Thermomechanical Effects**:

Early observations on the measurement of thermal conductivity of liquid helium II were vitiated by a peculiar flow of the fluid against the temperature gradient. Allen and Jones employed an apparatus in the form of a capillary tube immersed in a liquid helium II bath, the lower end of the tube being packed with emery powder. Heat was supplied by illuminating the emery powder. It was found that the liquid shot out of the capillary tube in a fountain, the phenomenon being consequently termed *Fountain Effect*. The liquid had evidently flowed through the fine pores of the emery packing towards the source of heat, viz. the irradiated powder. The explanation of this effect was suggested by Tisza (1938) on the basis of the two fluid model. When liquid helium II flows through a fine capillary from a bath, the normal component is held back by viscosity. There is a consequent increase in the ratio of the normal fluid to the total fluid. This being a function of temperature only, the effect is felt as a rise in the temperature of the bath. Thus a temperature gradient is set up opposite to the superfluid pressure gradient. This phenomenon, known as the *mechano caloric effect*, is just the converse of the fountain effect. In the latter, a superfluid flow is set up against a temperature gradient.

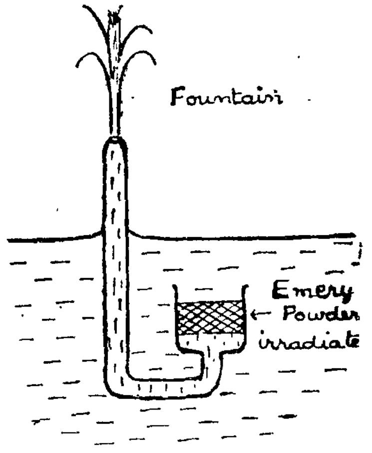


FIG. 6. Fountain effect

Tisza's prediction of the mechano caloric effect was verified by Daunt and Mendelssohn in 1941.

Kapitza's Theorem: By an ingenious application of the mechano caloric effect, Kapitza (1941) was able to determine the entropy of the superfluid. He used a Dewar flask connected to the bath by a narrow channel which was formed between two optically polished glass plates 10^{-5} cms. apart so that only the superfluid could pass through it. A heater coil was placed inside the flask and due to mechano caloric effect, the superfluid crept in towards the heater and the rate of flow of the fluid $\frac{dv}{dt}$ was found. If ΔS is the difference in entropy between the ordinary and superfluids, T ΔS is the heat absorbed per gram in passing from the superfluid to the bulk state and so $\frac{dQ}{dt} = \rho \frac{dv}{dt} T \Delta S$. This enables ΔS to be calculated since all the other quantities are known. ΔS can be found by another method also. If Δp is the pressure difference in the thermo-mechanical effect, $\left(\frac{\Delta p}{\Delta T}\right)_{\Delta T \to 0}$ was found to be a constant at a given temperature. Now considering the process as a thermodynamical one, the Gibbs' function must be a constant, i.e., $dG = d\,(U - pV + T\Delta S) = -V dp + dT \Delta S = 0$. Or $\frac{dp}{dT} = \rho\, \Delta S$ where $\rho = \frac{1}{V}$. Kapitza verified this equation due to London and evaluated ΔS from this also.

The value of ΔS determined by both the methods agreed very well. Further, the entropy of the normal fluid can be estimated from the specific heat measurements, since $S = \int \frac{C_v dT}{T}$ and $S = 0$ at $T = 0$. The calculated results of S are given together with the values of ΔS, showing that $\Delta S = S$. Later investigations have established this to be the case from $T_\lambda°$ to 0°K. This means that the entropy of the superfluid component is zero, a statement often called *Kapitza's Theorem* after its first enunciator. It may be pointed out that Daunt and others have shown, by measurements of Thomson heat, that the electrons responsible for superconductivity are also at their zero point energy.

T [°K]	ΔS	S $\left[\frac{\text{Joules}}{\text{gram}}\right]$
2.11	1.33	1.31
2.04	1.10	1.08
1.88	0.74	0.76
1.58	0.28	0.27
1.47	0.18	0.17
1.33	0.10	0.10

Thus, as has been pointed out by Mendelssohn, the particles which take part in the superflow, both the electrons and the helium atoms, remain in the same energy states that they have at absolute zero, although the rest of the material may be at a finite temperature.

(iii) **Heat Conduction:**

Liquid helium II exhibits superconductivity also. The quantity of heat conducted is about 10^6 times greater than that in ordinary helium I.

In fact, early observations showed that the phenomenon did not follow the Fourier formulation at all, the dependence on the length and the sectional area being complex. The two fluid model has introduced a new mechanism—*Inner Convection*—to explain this superconductivity. In a temperature gradient, the superfluid would move towards the source of heat due to the thermomechanical effect. At the higher temperature, the superfluid would get 'excited' absorbing $T \cdot \Delta S$ per gram in the process. At the colder part, the normal fluid would release the same heat so that there is a transfer of heat $\frac{dQ}{dt} = \frac{dM}{dt} \cdot T\,\Delta S$. The heat conducted by the normal fluid process $\frac{dM}{dt}\,C_v \cdot \Delta T$ would be small compared to this transfer.

Discussing the flow through narrow channels, where only the superfluid component is in action, the limit to the flow is set by the viscosity of the normal fluid and grad $p = \eta\,\nabla^2 v$ since the pressure head is the thermomechanical one, grad $p = \rho\,\Delta S$ grad T. Then it can be shown that $\frac{dQ}{dt} = -\frac{\rho^2 S^2 T d^3}{12\eta}$ grad T where $S = \Delta S$. This equation is due to London and Zilsel and the values of $\frac{dQ}{dt}$ calculated from this agrees with experiment as regards the order of magnitude for ordinary narrow channels. For very narrow channels, this gives a value about 100 times too small. The Knudsen type of flow, postulated by Görter and Mellinck, gives slightly better agreement. For wide channels, the normal fluid also will take part in the conduction, thereby complicating the nature of the conduction. Attempts to formulate a theory have been initiated.

However, the mechanism of inner convection was verified by Kapitza in 1944. He connected a liquid helium II flask to the main bath by a narrow horizontal capillary and hung one vane of a torsion balance in front of the capillary end. When the flask was heated, the vane was pushed away from the capillary showing the movement of the normal fluid away from the heater. As could be expected, the motion of the superfluid could not be detected. But the normal fluid velocity was of the right order of magnitude.

(iv) **Films:**

Another surprising phenomenon in liquid helium II is the formation of films. When a test tube of liquid helium II is raised above the helium bath, drops of the liquid are formed on the outside bottom of the tube and very soon all the liquid in the test tube is transferred to the bath! Again when an empty test tube is dipped in a helium II bath, liquid is seen collecting in the test tube and soon the levels inside and outside are the same.

Quantitative researches by Mendelssohn and his collaborators established the following properties of the phenomenon: (*a*) Under isothermal conditions liquid helium II collects at the lowest level. (*b*) This transfer is

effected by a film formed on the solid surface between the two reservoirs. (c) The rate of transfer is independent of the difference in levels and of

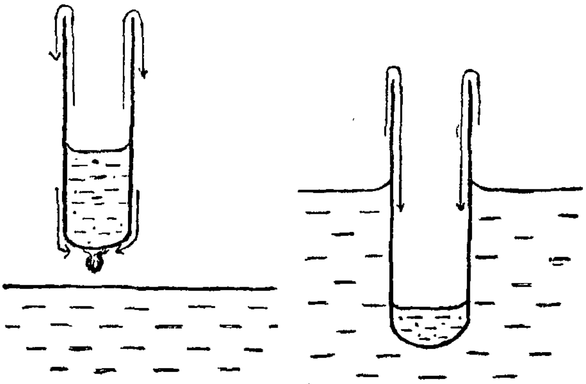


FIG. 7. Film flow of helium II

the material of the surface, but is proportional to the width of the connecting surface. (d) The rate of flow in cc/cm. width/sec. is a function of temperature.

Jackson and others developed ingenious means of measuring not only the rate of flow of the film but also the film thickness. The essential feature of the apparatus was that the film moved over a polished surface and the liquid was collected in a beaker. By finding the rate of increase of the level in the beaker, the rate of flow was calculated, while the thickness of the film was estimated by interference observations on the polished surface. Among the results obtained, we here give one which may throw some light on the mechanism of the film flow of liquid helium II. The product of the film thickness d and the velocity of flow v is a constant of the order of 10^{-3}, as is seen from the table given.

T [°K]	d [cms]	v [cm sec^{-1}]	$v \times d$
1·7	$1{\cdot}94 \times 10^{-6}$	$5{\cdot}1 \times 10^{2}$	$9{\cdot}9 \times 10^{-4}$
1·5	1·82	5·5	10·0 × ,,
1·3	1·67	5·8	9·7 × ,,
1·1	1·63	5·9	9·6 × ,,

On the theoretical side, the question of film, so characteristic of liquid helium II, is little understood. In fact the very mechanism of film formation has not yet been explained satisfactorily. Several hypotheses have been proposed, as for example, the Van der Waals forces of the condensed Bose-Einstein gas, the wave mechanical Van der Waals force, etc. The Van der Waals force theory gives $d \propto H^{1/3}$, but this variation of film thickness with height does not agree with experiments. Further, none of the theories gives any mechanism of the film transfer of the liquid. The only clue has been a suggestion made by London, who found that if m is the mass of the helium atom, $mvd \simeq h$, the Planck's constant. This is approximately true over a wide range, but the relation is purely empirical.

(v) **Second Sound:**

Among the curious properties of liquid helium II, the best understood one is the phenomenon of second sound. Indeed, it was predicted by Tisza even before its discovery. In the ordinary fluid, the pressure and hence density may vary at a point (the temperature remaining constant) constituting the ordinary sound. But when we consider the superfluid component, it is conceivable that the temperature and entropy may vary while the pressure remains constant. This type of waves has been termed *Second Sound.* This name, first suggested by Landau, is still retained, though the type of waves under consideration is purely thermal and cannot be produced by mechanical means, because there is no variation of pressure or density in this motion.

The problem can be solved hydrodynamically, as has been done by several authors like Tisza, London, Landau, Gorter, Zilsel, Temperley, Dingle etc. The first order equations governing the phenomenon are

$$\rho_n \frac{\partial V_n}{\partial t} = -\frac{\rho_n}{\rho} \text{grad } p - \rho_s \text{ S grad T}$$

$$\rho_s \frac{\partial V_s}{\partial t} = -\frac{\rho_s}{\rho} \text{grad } p + \rho_s \text{ S grad T}$$

while the authors differ in the second order terms. The rigorous expressions for the velocity are due to Tisza and to Landau. In the region T_λ to 1°K, both expressions give the same values. Below 1°K, Tisza predicted that the velocity should tend to zero, while Landau predicted a minimum at 1°K and then a rise of velocity levelling off at about 150 metres/sec. as T tends to zero.

The first experiments on second sound were done by Peshkov. He used a stationary wave method, a heater coil fed by an A.C. supplying the temperature variations to the liquid and the nodes and antinodes observed by a detector. From the frequency and wave length, the velocity was calculated. Peshkov found no dispersion over a range of 10 to 10^4 cycles/sec. His measurements from T_λ to 0·8°K as shown in fig. 8 settled the question in favour of Landau's theory. The velocity rapidly rises from 0 at T_λ to 20·3 metres at 1·65°K, then reaches a minimum of 18 metres at 1°K and then rises. The theoretical values of Landau and Tisza below 1°K are also given for comparison.

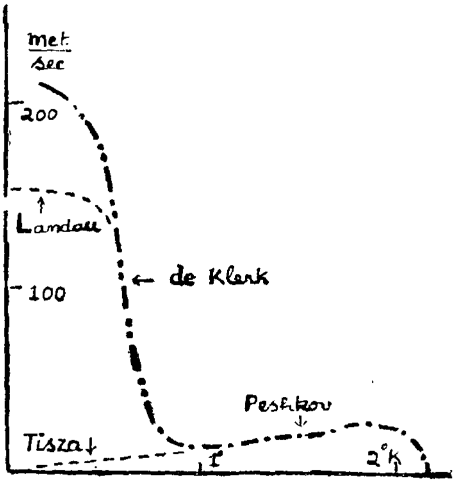


FIG. 8. Velocity of second sound

Other techniques also have been used. Lane and his coworkers have utilised the phenomenon that at the surface the second sound variations are converted to ordinary sound pulsations and have employed an ordinary detector. Pellam and Osborne have used the

pulse method in connection with an oscillograph. This last mentioned technique is useful at very low temperatures, as the heat input is quite small. The recent measurements of de Klerk, Hudson and Pellam (1953) at the very low temperatures in the adiabatic demagnetisation range are given in fig. 8. At about 0·6°K, there is a very steep rise of the velocity just at the region where the T^3 variation due to phonons becomes apparent. But instead of levelling off at 150 metres, as predicted by Landau, the velocity tends to a value of about 220 metres/sec. as T tends to zero.

The accepted explanation is that the discrepancy is due to the neglect of the phonon free path. For the second sound the local temperature variations must be established, which is possible if the mean free path of the phonons is much shorter than the wavelength. But if the mean free path becomes macroscopic, as should happen at very low temperatures, the heat pulse tends to be transmitted with the velocity of phonons i.e., first sound. Recent investigations of Kramers and Görter appear to confirm the mean free path theory.

Measurements of $\frac{\rho_n}{\rho}$ is possible by a study of the second sound and the results confirm the values obtained by the other methods. Also the attenuation of second sound has been investigated. But this awaits an adequate theoretical support. Recently, Kronig and Thellung, starting from the most general equations, have shown that there should exist a third type of wave motion. This—the *Third Sound*—is a 'skin effect' confined to about 10^5 cms. from the surface. Experiments have not been devised to investigate this so far.

6. CONCLUSION

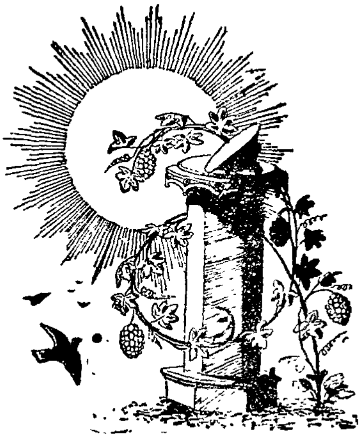
Though the discoveries of the fundamental properties of liquid helium II were made several years back, detailed investigations of the phenomena began only a decade ago. Of late, great stress is placed upon the measurements with the liquid helium of the isotope of mass 3, the aim being to decide between the phenomenological theories of Landau and others and the Bose-Einstein gas theory of London and Feynmann. The rare isotope of helium of mass 3 obeys the Fermi-Diriac statistics and so the Bose-Einstein gas theory is inapplicable to it. This fact, suggested independently by several scientists, is the cause of great interest centred now around liquid $helium^3$.

On the experimental side however, in addition to the difficulties in working at very low temperatures, there is the added trouble that He^3 is present to the extent of only 1 part in 80,000 of the ordinary helium, so that till recently, most of the researches were carried out with mixtures of He^3 and He^4. In 1949, Osborne and his co-workers found that liquid $helium^3$ showed no superfluidity from 3·2°K to 1°K, the range being later (1951) extended to 0·2°K by Daunt. Further, Osborne and Daunt in 1954

have proved that no λ anomaly exists in the specific heat upto 0·5°K. These results favour the London-Feynmann theories that the λ transition is a Bose-Einstein gas condensation.

The actual picture is more complicated than this. Experiments of Hammel and Schüler (1952) indicate an anomalous flow of liquid He^3 out of a mixture of He^3 and He^4. Again there are indirect evidences that He^3 is not completely unlike He^4. Many of the properties of liquid He^3 were very beautifully predicted by de Boer and Lunbuck (1948) using the de Boer's *quantum law of corresponding states*, without any consideration of the statistics involved. In particular, the vapour pressure was accurately predicted. This does not favour Landau's hypothesis directly, but it is evident that some of the properties of liquids may be insensitive to the nature of particles—or to put it in another way, some properties of He^4 and He^3 may be explained without a fundamental knowledge of the statistics of the system involved. The situation in some respects is quite similar to that in thermodynamics. We have, on the one hand, the phenomenological approach of Maxwell and Caratheödory, while on the others, there is the statistical mechanics of the Gibb's school. The problem in hand determines which of the two analyses is more convenient, though both the methods are equally reliable.

We are slowly, but surely and steadily, gaining knowledge. Lockyer, when he discovered helium in the spectrum of the sun, could not have imagined a fourth state of aggregation; nor could Nernst, when he formulated the third law of Thermodynamics, have imagined that its vindication would come from this inert gas. The dawn of knowledge has not only dispelled the darkness of ignorance but has brought into view innumerable new things which we did not know previously. It is strange how much we have to know before we realise how little we know!



Mahabalipuram

By AMBROISE PROSPER, III B.A.

DE toutes les ruines historiques que l'Inde possède, les ruines de Mahabalipuram dans le sud sont les plus renommées. La ville, située sur la côte de Coromandel à cinquante Kilomètres environ au sud de Madras, attire des milliers de touristes, d'historiens et de chercheurs qui viennent admirer ses fouilles et son architecture.

L'importance de cette ville est due aux Pallavas qui ont vécu au sixième siècle après Jésus Christ. Fondée en l'an 625 A.D. par Narasimhavarman (Mahamalla) la cité fut appelée après lui " Mahamallapuram ou Mamallapuram." Mais au cours des siècles ce mot se changea en Mahabalipuram. Cette cité est aussi parfois nommée "la cité de sept pagodes" à cause des sept pagodes construites par les Pallavas.

Narasimhavarman ne vécut que trente cinq ans, mais administra son royaume avec grande équité. Il permit à son peuple de pratiquer la religion hindoue bien que la religion de Buddha était alors dans l'ascendant. Grâce aux ressources mises à sa disposition, il encouragea l'art de tailler les pierres et orna sa capitale de monuments à l'architecture splendide. Les sujets excellaient si bien dans la taille des pierres qu'ils édifièrent des monuments d'architecture capables d'étonner même nos architectes modernes.

Les ruines de Mahabalipuram doivent être divisées en quatre catégories: statues, mandabams, rathams et gopurams. Les statues qui se trouvent la plupart au nord de la ville nous enseignent la cause de leur existence aussi bien que leurs histoires traditionelles. La statue de "Thirumurthi" se trouve en face d'un temple et représente l'incarnation de Dieu en trois personnes Siva, Brahma et Vishnu. La cave d'Arjuna qui est à quelques pas de la statue de Thirumurthi nous rensigne que c'est là qu'Arjuna fit sa méditation au milieu des dieux et des prêtres hindous qui sont assis derrière lui. En outre on raconte que c'est là que pour la première fois Shri Vinayagar vint au monde pour rencontrer Arjuna avant que ce dernier ne commença sa méditation. La statue de Krishna taillée dans un rocher nous montre que Krishna utilisait la montagne, Kovarthan, comme parapluie. Une des sculptures nous décrit un laitier en train de traire sa vache. On admire surtout les sculptures d'un éléphant, d'un lion et de deux singes. Un rocher qui se tient en équilibre sur une pointe mérite l'attention. Il nous donna la tentation de le pousser pour le faire tomber mais nous ne réussîmes pas.

Les Mandabams, qui se trouvent au sud de la ville, nous fournissent des documents précieux pour étudier l'histoire du septième

et huitième siècle. Construits par les Pallavas, entre 630 et 740 A.D. ils nous ont transmis des travaux d'architecture qui rendent gloire à nos aieux. Parmi tous ces Mandabams il y en a quatre qui méritent une mention. "Le Varaga Mandabam" construit entre 640 et 740 A.D. est consacré à "Thirumal" qui resemble au "Varagam." Le "Ramanujam Mandabam" a été construit par Mamallan entre 630 et 660 A.D. en l'honneur de Shri Ramanujam. Le "Vinava Mandabam" fût construit à la même période. Il est clair qu'il appartenait d'abord au "Lord Shiva" et que plus tard il derivint la propriété des Vinavas. Enfin le "Krishna Mandapam" construit lui aussi pendant la même période nous raconte en ses diverses sculptures les travaux de "Lord Krishna" à qui ce temple appartenait.

Un Ratham est un chariot utilisé par les princes allant en guerre. Mais à Mahabalipuram ce mot ne signifie pas un chariot, mais au contraire un petit temple où l'on peut trouver des oeuvres d'architecture. Ces rathams qui sont au nombre de cinq dans le voisinage des statues et des mandabams, sont souvent nommés "Pancha Pandavas Rathams." Construits par les Pallavas entre 630 et 660 de l'ère chrétienne, ces rathams ont provoqué par leurs sculptures élégantes et multiples l'admiration des architectes de notre temps. La beauté de ces rathams consiste en ce que chaque ratham est taillée d'un seul roc et offre des différences de style architectural élégant et gracieux. Les rathams sont souvent nommées, "Pancha Pandavas Rathams" parce qu'elles sont dédiées aux cinq Pandavas Dharman, Bhiman, Arjunan, Nakulan et Sakhadevan.

Les pagodes de Mahabalipuram nous prouvent conclusivement que les Pallavas étaient des Hindous, bièn qu'à ce temps là une forte majorité pratiquait la religion de Buddha. On s'étonne parfois que la ville, de Mahabalipuram, soit appelé la ville des sept pagodes, alors qu'elle ne possède vraiment qu'une seule pagode. La raison en est très simple: six pagodes ont été minées et détruites par la mer. Quand à la septième pagode la mer a commencé à la ronger et finira par la faire disparaître, au cours des temps. Il est très probable que la mer était autrefois très loin, mais peu à peu ses vagues ont envahi la civilisation crée par les Pallavas, et il ne nous reste plus que la septième pagode pour nous révéler l'art et la patience de ces glorieux ancêtres.

Encourage Cottage Industries

By R. SRINIVASAN, III B.Sc.

Introduction

WHATEVER be the difficulties that face us now in the problem of reviving our cottage industries, India has to evolve its own pattern of industrialisation to suit its vast population's needs. If India wants to remedy the present state of affairs regarding its negligence towards these cottage industries, she has to industrialise the country in such a way as to provide employment to the many millions in villages. The growing density of population should not result in chronic unemployment. The beneficial effects of production and turn-over should be encouraged. There is no use in making brocades of speech to stimulate local economic activities, but success will consist in widely scattering the increase of production and the purchasing power. If we analyse some of these points, we shall in no case differ from our idea that cottage industries should be encouraged. Our cottage industries have survived gross neglect and even active hostility in the past, and the wisdom of encouraging them is the present question that seriously confronts our country.

Recently we listened to a Radio talk on the "Basis of the Second Five-Year Plan" by Prof. P. C. Mahalanobis who stressed the all-important task of encouraging our cottage industries. It may be useful to analyse this problem.

Seasonal unemployment

Unemployment—which includes under-employment—is the most important problem facing the country to-day, and perhaps the principal cause of our extreme poverty. But unemployment is not a whole thing which can be discussed at a stretch. It has many branches.

Seasonal unemployment is the first problem that we have to tackle. Though India has made some progress in the field of industrialisation, it is still and will always be an agricultural country. Agriculture is essentially a seasonal industry in which nearly three-fourths of the total population of India are absorbed. They have to remain unoccupied for at least 3 or 6 months every year. Thus 40% of India's occupied persons are seasonally unemployed. The undue depression of the standard of living and the intensification of the deadlock between agriculture and industry are due to seasonal unemployment.

"Therefore the provision of work during the periods of seasonal unemployment is of paramount importance." The work that is given should be easy to learn and easy to follow and so chosen that it will not interfere with the main work of agriculture. This condition can be satisfied only if the subsidiary work is such that the omission of it sometimes will not have any serious effect on the main work. Cottage industries fulfil these requirements. The main occupation, agriculture, is not at all disturbed by the seasonal employment provided by cottage industries at the very doors of the cultivators with no loss of energy or time. Cottage industries will not only give "much needed employment during the off-season, but also serve as a second string to the (agriculturist's) bow."

Maldistribution

Inequality of incomes is mainly due to large-scale industrialisation. Owing to this the labourer remains always poor while the industrialist becomes fabulously rich. To remedy this, cottage industries are the best means. Without distributive justice production can never be satisfactory. Every one cries for increase of production, and no one thinks of equitable distribution. No doubt, production can be increased by large-scale industries, but they cannot provide equitable distribution which is provided only by cottage industries. Cottage industries, if they are given the utmost encouragement, will even in the short run meet the demand for increase of production.

It is estimated that about one-third of our national income goes into the hands of only one or two per cent of the people. Is this not a grave signal for coming danger? This maldistribution of the national income leads to social cleavages and disharmony. It can be put an end to only by cottage industries.

Regionalisation

A balanced development is the next thing we need. A regional basis provides this when cottage industries are introduced. Thus a sound employment equilibrium can be achieved. Soviet economic planning is mainly based on regionalisation. Congested industrial centres can no longer be distinguished from backward villages in Russia. Even in England, which is mainly a factory-industrial country, regional distribution has been seriously taken up. India has not yet put forward a specific plan; she would do well to provide for the regionalisation and dispersal of industries and thus steer clear of the evils that may ensue from a planned development of the country.

The expansion of cottage industries will rectify the unevenness of occupational opportunities in different regions of the country. They

will, in other words, cover the 'void left by the unfilled gaps' in industrialisation.

The new conflict

Dr. Visvesvaraya, who was recently awarded the Bharat Ratna, India's highest award, insists that rural industrialisation is well suited to the conditions prevailing in India. He says that Russia and America have shortage of labour, while in India the increase of population results in serious unemployment. If India has to remedy this state of affairs, she has to industrialise herself in such a way as to employ all the persons who are unoccupied till now.

Europe and America are different from India. Labour is the essential thing in which they are lacking. They have plenty of capital; but their growth of population and hence their labour is very low. Therefore, in order to replace the labour of men, machinery and advanced technology are necessary for them. Our problem is just the opposite. A fair degree of productivity should be maintained side by side with labour-employing activity. Labour-saving, which is the work of machinery, is not what we need: we have to absorb as much labour as possible. Cottage industries should therefore be encouraged because in these the proportion of labour to capital is very high.

Sir Mirza Ismail, pleading for the 'rapid industrialisation' of India, says: "Surely it is not our aim or desire to make a land of austerity, inhabited mostly by sadhus, fakirs and sannyasins." It is painful to note a man like Mirza Ismail—who has reached great eminence by his long and distinguished service as an administrator—making such a statement, indirectly condemning the growth of cottage industries. In his desire to condemn the anti-machine attitude of extreme conservatives, he forgets that a healthy national development requires certain high qualities which are provided only by cottage industries.

This does not mean that we must not have large-scale industries which are the bulwark of national defence and the foundation on which industrial progress is based. All I say is that we must increase our cottage industries without any reduction of our progress in large-scale industries. Both have to be properly integrated into one co-ordinated economy suited to the welfare of the people at large.

These cottage industries can be developed without great expense. Production and turn-over are much more rapid in small industries, and therefore their beneficial effects would quickly accrue. They stimulate local economic activities and the rural areas and small towns are bound to grow rich. "It will also avoid the cost and difficulties of providing housing, transport and proper social amenities to the workers which would be needed if production were to be organised in big factories in urban areas".

Small-scale industries absorb a number of labourers, thereby remedying unemployment. Sometimes hand-made articles are slightly dearer than mill-made articles of comparable quality. In such cases, Prof. Mahalanobis suggests that "suitable parity between prices should be maintained by imposing excise duties on mill-made goods." This suggestion is not acceptable, since it prevents the progress of large-scale industries. *The Indian Express*, in its editorial of 15th September, 1955, remarked:

"Resources which cannot easily be diverted to other purposes should certainly be utilised by large-scale industries. The suggestion that more work in the villages can be created by limiting or reducing the output of large-scale industry is an attempt to lure the public into supporting cottage industries by the familiar device of mixing up problems of production and distribution. These attempts are not called for in a Welfare State which can afford to distribute wealth according to its own principles and discretion, regardless of how or by whom it is created."

This criticism lays much emphasis on the Welfare State which is not yet a reality in India, and condemns Prof. Mahalanobis for contemplating 'a complete switchover to large-scale production'. It rightly states that cottage industries cannot be developed by merely holding up the progress of industrialisation or by bolstering up price-adjustments.

Conclusion

Due attention should be paid to the means by which cottage industries can be developed. Our traditional approach of digging the past and bringing back the dead to life should be given up New industries on the best models should be organised. Japan and China are the foremost neighbours that provide us with numerous lessons in this venture. A balanced economy is necessary for sustaining rural economy and improving urban industries.

Regionalisation is the best method of providing for progress. Future potentialities of existing industries should be surveyed by special committees. Industries should be, as far as possible, decentralised to avoid undue overlapping. New ones should be established in various places, if necessary. Large-scale industries expect a flexible adaptation and integration of cottage industries. Specific assistance should be given by every organisation. Regional conflicts may often arise and they must be ironed out peacefully. National economy should be the aim of cottage industries; if this is kept in view, nothing can again bring destruction to them. The ethical and aesthetic values of these small-scale industries prevent evil consequences. The Government has launched its Second Five-Year Plan to be helpful in the development of these industries. We must, therefore, gladly march forward to reconstruct India.

॥ बिजली ॥

K. Jayaraman, III B. Sc.

वाह री बिजली! बिना तेरे आज हो सकता है क्या?
आज तेरे बिना कह सकता है कौन, करता हूं एक नया ॥
अखंड भंडार शक्ति का आधार आज तू ही है अवनि में शक्ति ।
हरा नहीं भी जिसे, कहकर कोई और एक हाजिर है शक्ति ॥

शक्ति तो ऐसी नहीं, बल्कि तुझ में हाजिर है एक तरह का वाद ।
मचल मचल रही है नहीं मेरे समान प्यारे अच्छे साम्यवाद ॥
कुचल रही है तू सब गृहालंकार मिट्टी दीपों के दिल ।
दलित, पीडित दिल कह सकते हैं क्या, देख मेरा हाल ॥

चाहे घर हो, मठ हो, चाहे हो भी वह गृह-कुटीर ।
वन हो चाहे घने जंगल भी हों, कहीं भी हो धीर रघुवीर ॥
कुशल कुशल दौड दौडकर चमक रही है तू अवनि में आज ।
सब कहीं तू चमक रही है मानों तू ही ताज का महाराज ॥

एक नहीं, नहीं दो, फिर हजारों भी नहीं तेरे मित्र ।
रहते हैं करोडों की संख्या में आज, है तू ही पालक तथा जनमित्र ॥
आम मकान से है, तेरी विद्युत शक्ति बडी कारखानों तक ।
हो जाता है तू नये नये आविष्कार का सच्चा पथप्रदर्शक ॥

इधर होती है छोटी से छोटी चीजों की असंख्य उत्पत्ति ।
और आ जाती है बडी चीजों से अनगिनत मूल तथा संपत्ति ॥
इधर रोशनी है उधर मंगलमय प्रकाश है हाज़िर आज ।
इधर उधर सब जगहों में है तू आज मानों तू ही ताज का महाराज ॥

है तेरा एक न एक जलप्रपात ही मूल निवास ।
है तेरी लंबी राह में लगातार तार का निवास ॥
था तेरे बाप का नाम महत्वपूर्ण 'एडिसन' बिना आराम ।
था तेरा रहनुमा एक झुंड जिसका है आज एक बडा नाम ॥

हां! हो रही है सब जगह आज नये नये कुतूहल आविष्कार ।
कोई रह नहीं सकता चिरकाल तेरा करके बहिष्कार ॥
हां! सच्चे तथा अच्छे बर्ताव से रहता तो तू ही सदा नौकर ।
हाय, नटखट हो जाय तो तू बदल जाता है क्रूर यमकिंकर ॥

॥ भारत में बेकारी ॥

Henry Cherayath II U. C.

अगर हम इतिहास के पृष्ठों को देखें तो हमें पता चलता है कि एक समय भारत 'सोने की चिडिया' कहलाता था । उस ज़माने में भारत में दूध-घी की नदियाँ बहती थीं । इस से भारत की समृद्धि, वैभव, आर्थिक स्थिति और औद्योगिक हालत इत्यादि का अन्दाज़ लग सकता है । किन्तु अब अखंड भारत में व्यापारी या मज़दूर, शिक्षित या अपढ लोग बेकारी की महाव्याधि से पीडित हैं ।

इसका कारण क्या है? पहले पहल भारत में अंग्रेज़ों के आगमन के बाद भारत व्यवसाय, संस्कृति आदि में कमज़ोर होने लगा । अंग्रेज़ों ने यहाँ के व्यवसाय को धीरे धीरे बंद कर दिया था । दूसरे शब्दों में, उन्होंने इस देश का खून चूसा है । पराधीनता की शृंखलाओं में जकडा हुआ हमारा देश आज बेकारी के रोग से आक्रान्त है । नेहरूजी अपनी आत्मकथा में कहते हैं कि अंग्रेज़ों ने हमारे दृष्टिकोण को बदल दिया है । आज इस देश में जो बेकारी देखी जाती है उसका प्रथम और प्रधान कारण विदेशी शासन है ।

दूसरा कारण भारत का विभाजन है । जब हमको आज़ादी मिली तब हमारा भारत देश 'पाकिस्तान' और 'हिंदुस्तान' के रूप में खंडित हुआ । उस वक्त भारत से मुसलमान लोग पाकिस्तान चले गये और वहाँ से हिन्दू लोग यहाँ चले आये । वे अपने घर-बार छोड चुके थे । उनके लिये भोजन, वस्त्र, मकान वगैरह की व्यवस्था करनी थी ।

भारतवर्ष मुख्य रूप से कृषि-प्रधान देश है । उसकी आबादी का लग-भग $\frac{3}{4}$ भाग इसी काम पर निर्भर रहता है । किसान खेत में सुबह से शाम तक कठिन काम करते हैं । फिर भी वे अपने दिन बडी मुश्किल से काटते हैं । वे आम तौर से ऋण में डूबे रहते हैं । इसका कारण किसान नहीं, बल्कि हमारी सरकार है । विदेशी राज्यों में जैसे 'अमेरिका,' 'चीन,' 'रूस' आदि राज्यों में खेती-बारी करने के लिये यंत्र हैं, वैसे यहाँ नहीं हैं ; हमारे किसान बूढ़े बैलों से ही काम लेते हैं ।

व्यवसाय के बारे में यह कहना एक अजीब बात है कि भारत में बडे बडे कारखाने नहीं हैं। भारत में कोई ऐसी चीजें भी नहीं बनाते जो दूसरे राज्य खरीद सकें। यह तो कहना ठीक है कि भारत की आर्थिक और औद्योगिक उन्नति के लिये कच्ची धातुएँ प्रचुर मात्रा में नहीं मिलतीं। हमारे राज्य में घरेलू-उद्योगों के अभाव से अधिकांश लोग अपनी फुरसत के समय निठल्ले बैठे रहते हैं।

आज हमारे देश की दुर्दशा का दूसरा कारण उसकी जनसंख्या है। अब भारत की आबादी करीब चालीस लाख है और संसार भर में केवल 'चीन' को छोडकर कोई दूसरा देश ऐसा नहीं जिसकी आबादी भारत से अधिक हो। इसलिये इस कृषि-प्रधान राज्य में जहां व्यवसायक की तरक्की नहीं, इन चालीस लाख लोगों को काम देना लोहे का चना चबाना है।

बेकारी का अन्य कारण औद्योगिक शिक्षा का अभाव है। आज की शिक्षा बेकार है। इस शिक्षा से जवानों की रोटी की समस्या हल नहीं होती। यह एक दुख की बात है कि हमारे राज्य में एक राष्ट्र भाषा नहीं है। भारत के भिन्न भिन्न लोग भिन्न भिन्न भाषायें बोलते हैं। इसलिये एक 'देश भाषा' के अभाव से हमारा देश प्रगति के मार्ग पर अग्रसर नहीं हो रहा है।

आठ वर्ष से भारतवर्ष स्वतंत्र है। जो लोग अब भी अपना जीवन निर्वाह करने के लिये यथेष्ट भोजन नहीं पा सकते उनका यह कहना स्वाभाविक है कि यह आज़ादी किस काम की; क्या हम भूखों मरने के लिये ही आज़ाद हुए हैं। अब साल पर साल कालेजों से लोग बी. ए., एम. ए. आदि पास कर निकलते हैं। मगर उन लोगों के लिये काम कहाँ है? सब इधर उधर मारे मारे फिरते हैं। छोटी - छोटी नौकरियों के लिये हज़ारों की संख्या में आवेदन-पत्र निकलते हैं। इस प्रश्न से हमारे प्रधान मंत्री श्री जवाहरलाल नेहरू के दिल पर बडी चोट पहुँची है। भारत - सरकार ने इस समस्या को सुलझाने के लिये 'पंच वर्षीय योजना' बनायी है। इसका नतीजा यह होगा कि भारत की बंजर भूमि खेती के लायक हो जायगी। इसके अलावा भारत में अनेक बाँध बाँधे जाते हैं तथा नहरें बनायी जाती हैं। इस तरह इस योजना से कुछ कार्षिक प्रगति हुई है। अब सरकार ने एक दूसरी 'पंच वर्षीय योजना' का श्रीगणेश किया है। मैं विश्वास करता हूँ कि उस योजना से भारत में पुराने ज़माने की तरह दूध-घी की नदियाँ बहने लगेंगी।

Social Service in Deed

By P. SUBRAMANIAN, III B.Sc.

ON 8 September 1955 we the students of the Social Service Institute went on an excursion to Madras under the guidance of our Director, Rev. Fr. J. Adisayam, S.J. We reached Egmore Station on the 9th morning. The Loyola College bus was waiting for us to take us to Loyola Hostel where accommodation had been arranged for us. During our four days' excursion we visited no less than 12 Social Welfare Centres mostly dealing with Child and Women's Welfare; but what impressed me most was our visit to the Home for the Aged in Harrington Road near the Chetput Post Office.

This Home is conducted by the "Little Sisters of the Poor" for the benefit of poor aged men and women of all castes and religions. Those who have no help in this world, having no means of livelihood and no close relations to take care of them, seek admission here. They are all admitted in this Home without any restriction provided they are poor and destitute and have reached the age of 60. They are given free food, clothing and shelter—and what they need most, love.

This Home has no fund or regular source of income. It depends purely on the money collected by the Sisters who go out begging every day for these poor old people. From the money thus collected they maintain in this Home 99 men and 101 women, providing them with reasonably good food, decent clothing, and excellent shelter. One may wonder how these things can be done without any capital or regular income. But in truth these things are being done because these Sisters have a strong faith in the words of the Gospel: "Ask and you shall receive." They ask God and receive what they need. They have built a magnificent church with the stones of Pallavaram at a cost of Rs. 70,000 which was collected for this special purpose by begging.

The Home for the Aged consists of two sections, one for men and the other for women. Every man and woman is provided with a good bed and has access to comfortable furniture, like reclining chair, wheel-chair, etc. Those who want to read are provided with books and papers. We met one engaged in painting; another was busy gardening. There is a small garden in which vegetables are grown for home consumption. In the women's section we met a very old and absolutely helpless woman aged about 90 who was under the constant care of a Sister. We saw another old woman who was still a good singer. She sang a very melodious song for us.

We visited the Kitchen and the Laundry. They are kept very clean and neat. All the work of cooking and washing is done by the Sisters

assisted by the old people. Life in this Home is quiet and tranquil. Most of the inmates of the Home must have been men and women of talent in their youth, but now in the evening of their life they live under one roof like a family helping one another without any difference of caste or creed. This fraternal spirit is to be greatly admired and has been brought about by the extraordinary faith and courage of the Little Sisters of the Poor who sacrifice their lives for the happiness of the helpless.

We have met these Little Sisters of the Poor before in our New Hostel when they come to collect money and old clothes; but only now did we have the privilege of seeing their noble work of untiring faith. These Sisters strongly believe that they will be helped by God in their service for the aged. Often they receive miraculous help. One of the Sisters gave us an instance of such help. At one time there was no firewood in the Home. It was the rainy season and firewood was badly needed. They tried all human means of getting the much-needed firewood but without success. They then turned to prayer and asked God to come to their rescue. Their prayer was heard. An unknown person sent them a lorry-load of firewood. This is only one among the many instances of how these Sisters are constantly helped by God.

They are very grateful for the help they receive. They told us that the students of St. Joseph's College and especially of New Hostel helped them generously and that they remembered them in their prayers, particularly during the time of their examinations. Two candles are always burning in their church during the University examinations and the Sisters pray for the success of our students. I dare say that the excellent results of our College are partly due to their prayers.

The Price of Serving Mankind

'The price of serving mankind is evermore the Cross. The world breaks the heart of its best benefactors, and then, after a day, builds their sepulchres. If you would *raise* the age in which you live, you must live above it, and to live above it is to be misunderstood, and perhaps persecuted.'. . .

—J. E. C. WELLDON to Harrow boys.

Effect of Bathing on Humanity

By G. S. RAJARATHANAM, Post-Grad.

THEN came the curses from my mother. Up flew the plates through the window thrown at me like flying saucers. She began to shout at the top of her voice: "You thing! come out of the bathing room! You modham! Or else I will lock the door outside and make you attain your Moksha there. Come out, you scoundrel!" A meek voice floated from my throat: "I am coming, Mamma."

My thoughts went back to three incidents that happened in this universe and had great consequences; and curiously enough they had their origin in bathing.

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We are in the ancient Greek world and the pan-Hellenic movement is vigorously on. The whole city of Syracuse was excited. People were rushing pell-mell. The topic of the day was king Heiro who had delivered a certain weight of gold to a goldsmith to make a crown for him. Being a suspicious monarch he inclined to think that the workman had alloyed the gold with inferior metal. The task of finding this out was given to Archimedes, the philosoper-cum-savant. One day he went to have a bath. In the centre of the bathroom lay a wooden tub filled with perfumed water. A bathing seat of polished stone was provided, and on one side were placed bathing jars filled with highly scented water. He stepped into the wooden tub and observed that some of the water ran out over the tub. It immediately struck him that a body must displace its own bulk of water when it is immersed in it. When the idea flashed across his mind, the philosopher jumped out of the tub and ran in the street crying '*Eureka, Eureka.*' Then he found the true weight of gold and the workman was punished. This brought him into close alliance with the king and enjoying the royal favour he discovered various other instruments like the Archimedian Screw.

Bertrand Russell says: "His inventions were many and far in advance of his time." Einstein calls him "the great physicist of the ancient world."

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The second curtain is raised. A mother was cursing her own son, but in a different place and in different surroundings. It was in England and the period was the eve of the Industrial Revolution. Mother's curses were of no avail, for the son, James Watt, was watching with eagerness the steam coming from the kettle in which water was boiling for his bath. Suddenly

he jumped out with an exclamation of having found a great thing. The steam from the kettle was lifting the lid of the kettle. He consulted his friend Mr. Matthew Boulton. Being a mathematical instrument maker, he worked out the mathematical problems connected with a high-pressure steam engine. Acting on their preliminary invention, George Stephenson constructed the first locomotive. The importance of Railways in the modern world needs no comment.

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In the third scene we are in our enlightened 20th century. There was teeth-aching chill weather. The scene was in England. A poor boy fell into a tank filled with icy cakes. He had thought of taking a bath. He was about to be drowned, for he did not know swimming. Suddenly an aristocratic boy, standing on the bank, jumped into the tank and rescued the poor boy. Ever since they have been thick friends. Had it not been for that poor boy, millions, nay crores of men would have been extinguished by this time, for he was the celebrated Sir Alexander Fleming, the inventor of Penicillin. That aristocratic boy was no other than Sir Winston Churchill.

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My thoughts made me imagine myself a great scientist or a great benefactor of mankind. But they came to a standstill when a bucketful of cold water brought me back to the year of grace 1955, for I saw my mother stand by pouring cold water on me.

Beyond the Googol

By M. R. SUNDARAM, IV Hons.

COUNTING is as old as Mathematics and it is a most pleasant occupation. There is in all men an inborn desire to express even abstract qualities in terms of numbers. In a divorce case before the Court of Los Angeles in 1905, the woman declared that she loved the man a million billion billion times and eight times round the world. Human beings who do not know the ABC of Mathematics love to imagine the biggest number in the world and are proud of their fertile imagination. If such numbers can give so much pleasure even to laymen, it is no wonder that mathematicians revel in them.

Therefore it became necessary to give names to some of the greatest numbers. I followed by six zeros is called a million, I followed by twelve zeros is called a billion, 18 zeros a trillion, and 24 zeros a quadrillion ; in like manner I followed by 100 zeros is called Googol. Thus Googol is just a number whose value is 10^{100}.

Given a finite number, we can find a number greater than that; similarly, there are many numbers greater than Googol. But Googol is a much bigger number than those used in life.

It was found after rigorous mathematical calculation that the total number of raindrops falling on the city of New York in 24 hours, or in a year, or even in a century, is much less than Googol. Indeed Googol is a number larger than the largest number used in Astronomy or Physics.

The total number of electrons in a single leaf is much greater than the number of all the pores of the leaves of all the plants on the earth. But still the total number of electrons in the entire universe is much less than a Googol. According to Sir Arthur Eddington, it is, not approximately, but exactly equal to 136×2^{256}, which on multiplication gives a wonderful 79-digit number.

Before going beyond the Googol, it is better to know how the word made its way into Mathematics. Words of wisdom are spoken by children at least as often as by scientists. The name Googol was invented by a child, Dr. Kasner's nine-year-old nephew. Dr. Kasner, the well-known mathematician of the U. S. A., one day asked his nephew by what name he would call the greatest number in the world, namely I followed by 100 zeros. The boy replied : "*Googol.*" Then Kasner gave the name 'Googolplex' to a still larger number. Googolplex is a very great number but not equal to infinity. It is finite. It is even greater than googol times a googol. Googol times googol would be merely I followed by 200 zeros, whereas Googolplex is I followed by a googol of zeros. We can write the value of Googol on a sheet of paper. But there is no space on earth to write the value of Googolplex. Even if we go on adding zeros all through the Milky Way, we cannot write Googolplex. What a wonderful number it is!

With the aid of the mathematical eye we can see even beyond Googolplex. But Physics fails in this respect. The whirling dance of electrons can be seen by no one. Even with the aid of a powerful microscope we cannot see them clearly. But with the aid of mathematics and imagination the very small, the very big—in fact all things—can be brought under man's observation.

We all know the symbol ∞ which stands for infinity. This symbol was first employed by Wallis in 1655 in his 'Arithmetica Infinitorum.' The problems of infinity have challenged man's mind and fired his imagination as no other problem in the history of thought. Establishing the

science of infinity involves the theory of mathematical induction: what we have once done we can do again.

Infinity has a double aspect, the infinitely large and the infinitely small. There was always a great dispute among mathematicians about the existence of infinity. The warfare began in antiquity with the paradoxes of Zeno. Zeno's puzzles help to bring the problem within shorter focus. Since a line is supposed to contain an infinite number of points, Zeno argued that we cannot cross a room. In the same way he argued that Achilles can never overtake a tortoise. He argued that even if Achilles ran ten times as fast as a tortoise, and if the tortoise had (say) a 1000 yards start, it could never be overtaken; for when Achilles had gone the 1000-yards, the tortoise would be still 100 yards in front of him; by the time he had covered the 100 yards, it would still be 10 yards in front of him, and so on for ever; thus Achilles would get nearer and nearer to it but never overtake it. The fallacy is usually explained by the argument that the time required to overtake the tortoise can be divided into an infinite number of parts, but these get smaller and smaller in geometric progression and the sum of them is a finite time. After the lapse of that time Achilles would be ahead of the tortoise. Probably Zeno would have replied that this argument rests on the assumption that space is infinitely divisible.

At the end of the nineteenth century there came three eminent German professors who laid the problem of infinity and the once famous Zeno's problems to rest. If we are to believe that Achilles can never catch the tortoise, then we shall have to be prepared to swallow another paradox which Zeno never conceived of—'the whole is not greater than its parts.' Here are some examples.

We call 1, 2, 3, 4, ... integers and 2, 4, 6, 8, ... even integers. Of course, even integers form a part of the total number of integers. According to commonsense the whole is greater than its parts. But from the following pairing we see that the whole is no longer greater than its parts.

1	2	3	4	5	6	....
2	4	6	8	10	12	....

For every integer in the first row there is a corresponding integer in the second. This means that the total number of integers is equal to the total number of even integers.

Finally, these mathematicians declared that this property belongs only to infinite classes and to finite classes like googol and googolplex.

When all is said and done, whatever infinity may be, greater by far than Googol, it is no longer a purple cow.

The Ideal State!

By T. S. RAJAMANI, IV Hons.

AT midnight I was walking along the road after the second show of a movie. The road was completely deserted and I was startled when something caught hold of my shirt-sleeves from behind.

"Are you a ghost or a thief?" I asked trembling.

"I am a man and an idealist!" answered that object and came in front of me.

He was like any other man and so I could not understand why he called himself an idealist. I asked him and he said I should visit his ideal state. He suggested that both of us should go there and return before dawn next day. Though I was unwilling to go (because I value my sleep more than anything else in this world) his insistence made me go with him.

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I saw many strange things in his ideal state. First of all, there was an enormous amount of orderliness in that state. Houses were all alike in structure, appearance, plan, and space. The idealist told me that the state's people were all true believers in the principle of equality and that was why they had built their houses like that. He further said that the roads there were equal in length and breadth and even the trees and plants were adjusted in height from time to time. They would not be allowed to grow beyond the "optimum height" (my friend was very fond of this word and used it frequently).

In his earnest voice he said that the population there was controlled and equally distributed throughout the various territories of the state. The people there had to wear a common dress as an index of their belief in equality. He regretfully acknowledged that the people there differed in height and weight and he was in search of a Procrustes to solve this inequality.

As he told me, the second great merit of this state was the reverence paid by the people to law and order, to the principle of individual liberty and to the right of individual judgement. These were applied particularly to the sphere of crime. Criminals were punished, not by courts or police, but by the persons towards whom the criminals had misbehaved. This had given rise to the establishment of thousands of gallows and strongly guarded prisons; for the state had to enforce the sentence pronounced by the citizens on the criminals. My idealist claimed, that this method had wiped out unemployment (since many were killed and many appointed to kill them and guard them) and recommended this system for my own world!

He said that compulsion was the pivot of their social system. Education (and that too a particular system of it), entertainment, pastime, recreation, everything was compulsory. The element of compulsion was so great that even a sick student had to come and lie down in the school premises during class hours. If he abstained from class it was considered a violation of law and order, and the teacher was empowered to bring him by force to class. For this purpose gigantic men were selected as teachers.

He said that their Government was a democracy, where the people were the highest and ultimate authority and source of law and order. So the elected representatives must directly obey the people. He showed me a street where a man was assailed with questions and commands. He told me that that man was the representative of that constituency and the people were expressing their demands and wishes to him. Sometimes their demands might take a curious shape, as when the representative was asked to purchase vegetables for the people of his constituency (the great authority and source of law), whitewash their houses, and do their errands. If he disobeyed, he would be "recalled" and punished by them for his misdemeanour, which was considered a violation of the Law! Since nobody volunteered to contest the elections, some were forced to do so and the majority was always to be obeyed.

My idealist proudly announced to me that in his state nobody was idle. He funnily said that "an idle state is not an ideal state." Everybody had to do the "major works" by himself, for if he requested or allowed any other person to do them, his property would be given to the helper. For example, if a man tilled the land of another, he would become the owner of it; if a man washed the clothes of another, he would be entitled to the ownership of the latter's clothes; and so on.

The idealist then explained to me some minor details. After that, assuming a martyr-like air and with proud and expectant eyes, he looked at me and asked me: "Don't you like to become a citizen of this state?" To this he himself gave the answer: "I know you would. But now the population is at the 'optimum level' and so I can't take you. I shall send word to you as soon as an old man dies and then you can come and join us."

Then he bade me a courteous farewell and showed the route by which I had to go to reach my own world.

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The penetrating warmth of the sun's rays awakened me and there was no ideal state before me but only my clock which did not tick!

The reader may murmur that this is all humbug and nocturnal revelry. Whatever it is, I do not want to become a citizen of that ideal state. Do you?

Dangerous Games

By RUDOLPH O'BRIEN, III B.Sc.

THE hook-nosed, rat-mouthed man narrowed the slits of his small, pale blue eyes as he drew a last draught on his cigarette. To-day was his day. This morning he had had a tête-à-tête with one of the most beautiful women he had ever seen. Right through his career as an unconquered murderer he had never come across so beautiful a woman. Of that he was certain. However, there was one thing he disliked about her, and that was her eyes. Those green eyes betrayed hatred and jealousy and he placed her as a murderess. Nor was he wrong, for the purpose of her interviewing him was to employ his services to kill Jeff Reynolds, the blackmailer. Nothing could be easier, for Miss De Winter, as the blonde called herself, was Reynolds' fiancée. To-night he would put an end to Reynolds, meet the lady in an out-of-the-way spot, in a desolate, dilapitated house where he would receive the other half of his reward. He slid his left hand into his pocket and felt the crisp five hundred pounds. To-morrow he would sail to America where they said crooks lived easily. But to-day he had to finish Reynolds and so taking that last draught on his cigarette, he flung it away, vanishing into the shadows of the night. And if anyone had seen Pierre Guston at this moment, he would have fled.

As Guston had anticipated, the sky darkened, enabling him to reach Reynolds' residence unseen. True to his expectations he saw the blackmailer smile as his slim fingers deftly turned the pages of a black bound book. Slowly and silently he opened the window creeping as stealthily as a cat towards Reynolds. His right hand went into his coat pocket and the cold, metallic touch of his silenced automatic reassured him. Not that Guston was scared. On the contrary, the automatic reminded him of the first time he entered this profession. He had come out of twelve murders and this was to be his thirteenth. Would this be the last? A shudder seized Guston, but only for a moment. He was able to see Reynolds clearly, and he knew what he was about. No one was needed to tell him that Reynolds was trying to locate some one from his "Who's who" but he least expected to find his name there. His eyes widened and his jaw dropped as he read the capitals in red ink: "Pierre Guston, wanted in France, Switzerland and England." Beneath was Guston's history which was nothing new to him, but which at this moment gave him a thrill. A few lines below he sighted Miss De Winter's name. Reynolds had placed her as an ex-Nazi spy. So Reynolds knew who she was and that was the reason why Guston now stood behind him.

Loud roars of thunder followed by the sound of heavy rain broke the stillness of the air. Reynolds turned round and at the same instant a bullet

from the silenced automatic found its mark. Guston, as cool as ever, lifted his victim and placed him within his wardrobe. It was not safe to leave the "Who's who" around because the curious detectives would not miss it. Moreover, it was of immense value to Guston. Placing the book under his arm he disappeared as silently as he had come. He had accomplished his task. Now he wanted his reward.

Never had he attempted such a simple job. His twelve years as a seasoned killer had never produced such an easy escape. Every time he had had a tussle with the police and on two occasions he had the detectives framed as murderers. But this was the easiest. Filled with these thoughts he reached his rendezvous. Everything was in darkness. Even the house was dark. He wondered if Valerie De Winter had kept her appointment and tried the handle of the door. It was locked. Slightly he knocked. A feeble voice from within wailed: "Who's that?" Guston answered. A faint glow lit the house and Valerie opened the door. Only a candle burned on a table which supported two glasses and a bottle of whisky. Guston longed for a drink, and when he drank he drank well. Drink had practically no influence over him. As he moved towards the table he saw the five hundred pounds under the decanter and he admired the lady's foresight.

"Make yourself at home, Pierre" she said softly. "Everything you need is on the table. It is getting late for me. Adieu and thanks."

"Just a minute, Valerie" he answered, "I will have a drink and join you." Then seeing the lady's face change, he added: "Don't worry, I won't murder you."

Smiling she seated herself facing her hired killer while he emptied four glasses of her poisoned whisky. She saw him reel in pain, jump up, open his eyes in astonishment. "Who's there?" he shouted, and sank.

"It's me, Pierre" she laughed, not knowing he had alluded to the smudged face of the detective Dennis White, pressed against the window-pane. Drawing on her gloves she took back her five hundred pounds, took Reynolds' "Who's who," smashed the two glasses over Guston's head, and feeling his pulse she stepped out full of joy. Guston was dead.

What a fool he had made of himself in trusting her! He was not the first she had killed. Valerie was used to such treatment. During her service as a Nazi spy she had fared exceptionally well. She was a born crook. From the age of fourteen, guided by a false father, a Nazi himself, she spied on the British, and now when she was twenty-four that fool Reynolds tried to blackmail her. He wanted her to marry him. What impertinence! Now he had been murdered and served him right. She and her twin sister, another ex-spy, knew who had murdered him. That fancy detective White, could not pin the murder on her, for to-morrow

was to be her 'engagement' to Jeff. Her resources had never failed her, nor had her "twin sister."

At this very moment her "twin sister" was to bring her black Sedan and, as she stepped out drawing her shawl around her shoulders, she saw its headlights loom in the darkness. Swiftly she crossed the courtyard and walked to the door. "Quick," she whispered to the driver as she stepped in. A voice that froze her courage for a moment drawled out: "I arrest you, Miss De Winter, for the murder of Pierre Guston and as an accomplice in the murder of Jeff Reynolds."

Regaining her composure she looked around and saw detective Dennis White slouched in a corner, pointing a revolver at her. Valerie smiled.

"No, mon ami, you won't," she smiled; "I'll ring Chief Inspector Hutchings and tell him how you tried to molest me in my car." She laughed loud, but stopped short as the figure at the wheel sighed, "You bet I'll believe you!"

Social Service Excursion

By M. AUGUSTINE ABOORVASAMY, III U.C.

OUR excursion to Madras last September was a happy combination of education and recreation and this was best exemplified when we went to Chingleput to visit the Senior Certified School. We had a magnificent reception there and we spent three hours learning for ourselves the various attempts that were being made to transform a juvenile delinquent into a respectable member of society. After lunch we left for Mahabalipuram, a place frequented by tourists and archæologists, to admire the beautiful rock-cut temples which proclaim even today the glories of the famous Pallava rulers. In fact any one interested in South Indian art and architecture should not fail to visit this place.

Mahabalipuram, or Mahamallapuram, derives its name from the Pallava King Narasimha Varman I who, to commemorate his victory over the

Western Chalukyas after assuming the title of Vatapikonda Mahamalla, enriched this place with architectural works of enduring grandeur. What was once an obscure fishing village known as Kadalmalai Talasayanam is now renowned as the birthplace of South Indian architecture and sculpture. We were lucky in having for our guide Mr. A. Mahimaidas, M.A., a native of this place, an Old Boy of our College, and a lecturer in Physics of Loyola College, who took us round first to the Cave temples, then to the Rathas, and finally to the Shore temple.

The rock-cut cave temples have a beauty of their own. We saw the Tirumurti temple, Varaha Mandapa, Mahisasura Mandapa, and Krishna Mandapa—all works of profuse ornamentation whose richness only an expert can appreciate. We were told that the pillars in these cave temples were copied from Badami, while the statues and sculptures were original, particularly the representation of the fight of Durga against Mahisasura in the Mahisasura Mandapa. We were struck with the naturalness of the pose of the figures on the walls of these cave temples. Our photographer was very much impressed by the figure of the cowherd milking the cow in the Krishna Mandapa and took a beautiful snap of this figure. In all the works of architecture in Mahabalipuram a noticeable feature is that everything is carved out of rock. There is no place for timber, metal, brick, or mortar.

Very near the rock-cut temples we found beautiful specimens of rock sculptures in bas-relief now popularly known as Arjuna's Penance. This is a wonderful masterpiece of art. The unknown artists have managed to carve on two boulders a series of figures representing Arjuna and numerous other ascetics in the act of performing penance round a small shrine, maybe of Siva or Vishnu. What amused us most was the figure of a cat wishing to imitate the ascetics. It takes up a similar posture of penance by raising its whole body on its hind legs and lifting up its front paws above its head, while the little mice of the forest, seeing their enemy in a penitential attitude, flock around it to worship it as their god......Here is an example of imitative art which is unsurpassable.

On our way to the Rathas we visited the modern lighthouse which was built at the beginning of this century. It is 137 feet high and we reached the top by a flight of 94 steps. The light from this lighthouse is not so powerful as the one from the lighthouse on the top of the Madras High Court building. Yet it is sufficiently powerful to guide the ships sailing along the coast of the Bay of Bengal. From the top of this lighthouse one can have a beautiful panoramic view of all the architectural monuments of the place as well as the entire sea-front.

From the lighthouse we proceeded straight to the Rathas which are monolithic temples carved out of rocks without the use of brick, mortar,

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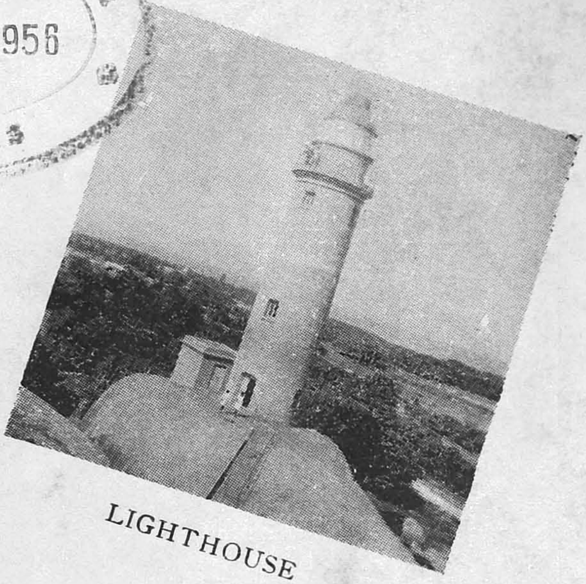
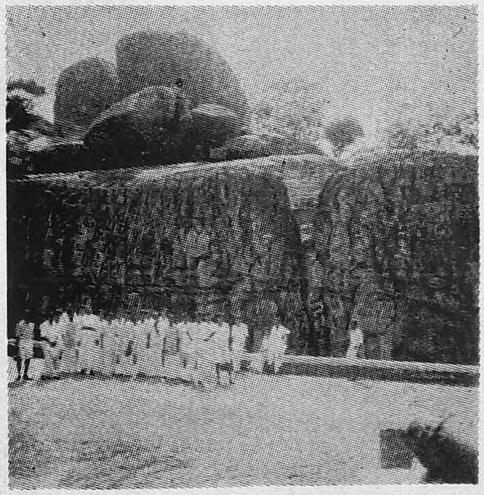
SHORE TEMPLE



LIGHTHOUSE

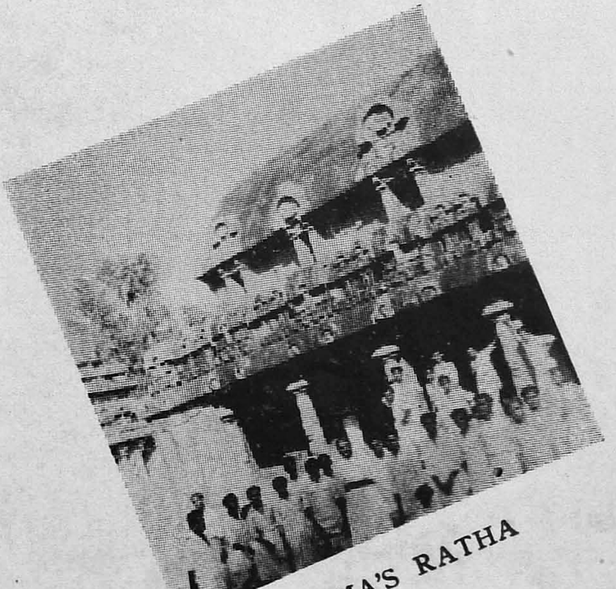


ARJUNA'S PENANCE

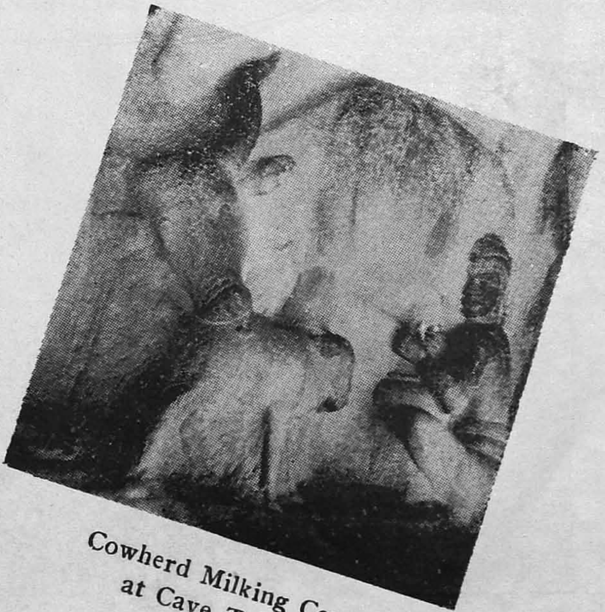
Photos by

PAUL MANICKAM

Students of the Social Instituts
at Arjuna's Ratha



BHIMA'S RATHA



Cowherd Milking Cow
at Cave Temple

MAHABALIPURAM

OV 1956

A PANORAMIC VIEW OF THE COLLEGE CAMPUS FROM THE COLLEGE CHURCH (*K. Sivaraj, III B.Sc.*)

IN A TRAVANCORE BACKWATER (*R. Annamalai, III U.C.*)

or wood. The first Ratha is the Draupadi Ratha which is unique. On the back wall of this temple is carved the figure of Durga with some attendants. The Dwarapalas are all women. The next one is known as Arjuna's Ratha but it contains no image. The roofs of the lower and first stories are ornamented, and this became the characteristic feature of Dravidian architecture later on. This Ratha is surmounted by an octagonal dome which was also copied by the later temple-builders. Near this Ratha is the famous elephant carved out of one boulder. We all gathered round this figure for a snap. The third Ratha is Bhima's Ratha which is an oblong structure having a curvilinear shaped roof with a straight ridge. Its dimensions are 48 ft. long, 25 ft. wide, and 25 ft. high. Here too we took a photo. The next Ratha is known as Dharmaraja's Ratha, the finest and the most interesting of the group. It is practically a replica of Arjuna's Ratha on a larger scale. It has 17 epigraphs which give a clue to the date of these monuments. Scholars assign the latter part of the 7th century to these Rathas. The fifth Ratha is Sahadeva's Ratha which resembles a Buddhist chaitya, but it is an unfinished structure. There can be no doubt that the Rathas will ever proclaim the greatness of the Pallava rulers.

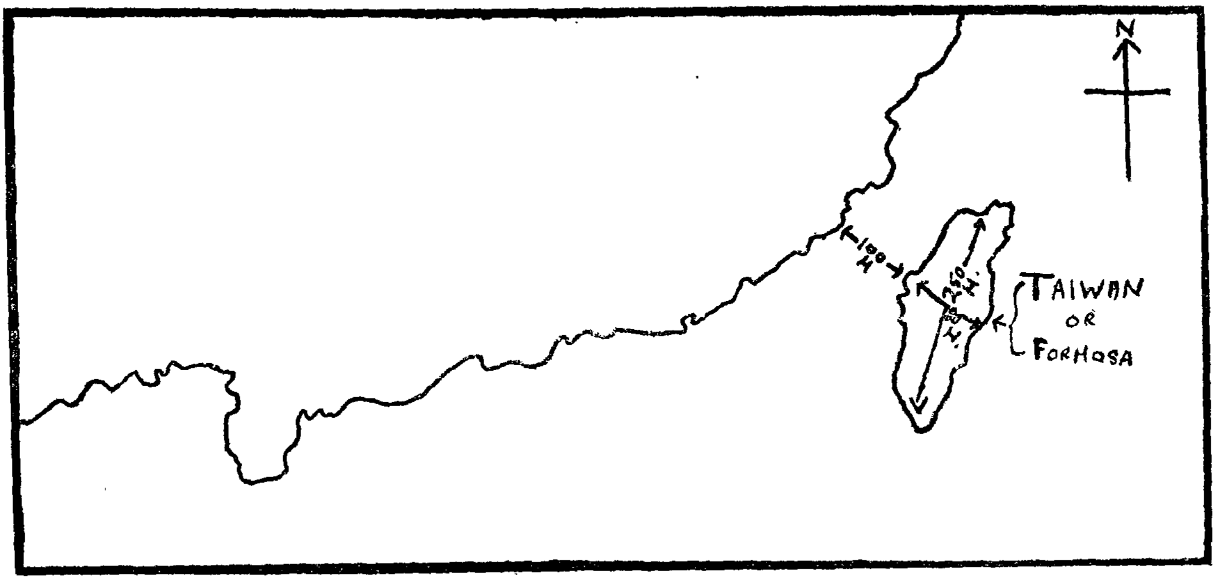
We next proceeded to the sea-shore to have a glimpse of the Shore Temple. In fact there are two temples, one facing east and the other facing west. Both are said to have been dedicated to Siva. The general style of the temple resembles the Dharmaraja Ratha. Yet the vimanas here are much higher and more elegant. The eastern temple has a vimana of six stories instead of the usual three. We were told that this shore temple was one of the seven pagodas built by the Pallavas. The other six have been submerged by the sea. Inside this shore temple we saw a huge stone figure carved in a reclining posture. We were told that it represented Narasimha Varman Mahamalla. This temple and the statue were erected by Narasimha Varman II surnamed Rajasimha, in honour of the founder of Mahabalipuram.

By the time we finished seeing this temple and enjoying the sea breeze it was getting late for us to return. We therefore regretfully snatched ourselves away from the place which has evoked in our mind a lasting appreciation of the great Pallava art and architecture.

Taiwan (Formosa)

By A. INDRASENAN, I U.C.

TAIWAN is an island situated about a hundred miles from the eastern coast of China. It is about two hundred and fifty miles long and eighty broad.



When the Portuguese adventurers sailed up the China Sea in the sixteenth century, they sighted a beautiful island. Its dense forests, rocky coast, and high range of mountains that run down the centre of the island gave it an enchanting appearance; so the Portuguese navigators called it the "*Beautiful Island*"—*Ilha Formosa.*

Taiwan's fertile plains are due to the rich yields of rice, sugarcane, and pine-apples. Besides fields and forests Taiwan has one great claim to distinction—it is the greatest camphor-producing area in the world. Besides, Taiwan has considerable mineral wealth.

It has two big ports: Keelung in the north and Takao in the south. These two ports are of much importance as trade centres and also as naval bases guarding the Taiwan strait.

About ninety-seven per cent of the population of Taiwan are Chinese and the remaining three per cent are Koashan, who are descendants of the people who came from the South-East Islands. It is clear from recent history that the Kaoshans co-operated with the Chinese in fighting against the foreign invaders.

Looking back at its history we see that Taiwan was occupied by the Chinese in the third century. In the seventh century, tribesmen visited the place; and in the ninth, trade began between Taiwan and some islands.

The Chinese immigrants did the administrative work of Taiwan regularly till the sixteenth century.

Early in the sixteenth century a Spanish force landed in Taiwan and ruled it for sixteen years. In 1624, the Dutch established a fort and settlement where Amping is now and ruled for a long period. But they were overwhelmed by Koxinga, a great Chinese pirate, and left the island in 1662.

Later in 1885 the island came into Chinese hands. Then Taiwan remained a Chinese possession until the war between Japan and China in 1890–5, when it was annexed by the Japanese. The Japanese settled in Taiwan and as a result its population increasad to a great extent.

During Japanese rule the Kaoshans, according to their tradition of fighting with every invader, formed their own army and fought against the Japanese troops; but they failed in their attempt. Their wish, however, was fulfilled by the second World War when the Japanese surrendered and Taiwan came under the Chinese administration. Hence Taiwan was considered a province of China but not for long. Soon after, some time in February 1947, there was a civil war between the Communists and the Nationalists in China where the nationalists were defeated and surrendered. The leader of the nationalists, Chiang Kai Shek, after the surrender ruled over Taiwan.

At that time the Communists in China tried to get back their beautiful island, Taiwan, but found it impossible because Chiang Kai Shek was helped by the United States Government. A Unittd States Army landed in Taiwan. And in June 1950 the United States seventh fleet was sent to Taiwan.

Now the beautiful island is the cause of disturbance to world peace.

To Close the Ears

God gave us eyelids: we can hide the eyes
From what is hideous or horrifies,
I wonder greatly that in recent years
We've not grown little flaps to close the ears.

A.P.H. in PUNCH, *Oct. 12, 1955*

Botanists at Top-slip

By L. V. VENKATARAMAN, III B.Sc.

WE were told beforehand by our Lecturers not to expect a theatre or a big hotel or a nice stroll in a bazaar at Top-slip. In fact we found the place to be a mere jungle with thick forests situated 3500 feet high on a hill fit for botanizing.

Immediately after the first terminal examination we started for Pollachi. Time in the train went very fast, as we sang the time away. At Pollachi a special bus was waiting to take us to Top-slip. It was a very dangerous spiral path. The bus in which we were travelling rattled along the road. We were happy on seeing a skilful man at the steering wheel nicely managing the dangerous turnings and not minding the ups and downs of the road. Our bus began to groan as it slowly made its laborious ascent up the hills. The horn went "honk! honk!!" at every turn. The deep valleys on the right and the thick forest on the left were awe-inspiring to behold.

At last we reached our rest-house. To our disappointment there was no electricity. So we were prepared to forgo all the conveniences that students on excursion like to have. For the first two days we went round the forests plant-hunting. We crossed the forest and jungle. In this our Lecturer, Mr. Rengarajan, showed himself to be adventurous. On our way we were lucky to see a nice but dangerous waterfall winding its way on rocks. We were not courageous enough to taste the water, as Rev. Fr. Balam had instructed us not to taste any water found on the way.

Our interests were not confined only to Botany. On the third day we were really overjoyed when Rev. Fr. Balam proposed to take us to Sungam some five miles away where there was a good elephant camp. The doctor in charge of the elephants accompanied us to show us the training of elephants. We were given a very nice reception by the elephants as we entered Sungam. About 12 elephants and 2 or 3 calves immediately stood on their hind legs lifting their fore-legs to greet and salute us. The doctor explained to us that it was the usual "guard of honour" given to visitors. We went round the camp and found two cages in which two elephants were imprisoned. The cage provides only sufficient place for the elephants to turn round. The body of the elephant was full of wounds. There was also a notice put up giving some details of the elephants, like height, weight, age, and date of capture. The doctor told us that it was a new capture named "Mursha." He explained to us in detail how they were capturing elephants by using pits. It was really thrilling when he said that they

used to chain the victims and lift them out of the pits with the help of trained tuskers. He also promised to take us to the pit if we were lucky to have an elephant fall, but we were not. Immediately after catching they are imprisoned in a cage to control their wild habits. In the cage they were exercisd in the alphabets of training. A Mahout and a 'coverdice' are appointed to take care of every elephant. We were amazed to see the service registers for each elephant. The rice and ragi are weighed and given in a well cooked form after scrutiny by the doctor.

The doctor took us to the place where the elephants were working. It was a teak forest and the elephants are employed to drag the uprooted teak trees to the roads. Some four or five heavy logs are tied by the Mahout by means of a rope or chain and the end is given to the elephant. It holds the rope by its teeth and drags the log, of course resting from time to time. This was really a curious sight for us. The doctor said that it costs only 2½ annas to drag 1 cubic foot of teak log. The elephants are worked only according to their age. Little calves are sold in the market. It will be amazing for us to note that a trained adult elephant will fetch about Rs. 16,000. We saw a three-months-old calf called Rani getting ready to be sent to Trinidad in the course of a few months.

Thus much of the third day was spent in seeing the curious elephant life. We heard from the doctor that almost all wild animals are found in the forest except lions, though we were unlucky not to see any one of them in the daytime.

After an interesting elephant study we began our work of botanizing once again. Four days were over and we were eager to hurry home.

Discipline

'No steam or gas ever drives anything until it is confined. No Niagara is ever turned into light and power until it is tunnelled. No life ever grows great until it is focused, dedicated, disciplined.'

—HARRY EMERSON FOSDICK

Panch Shila

By R. KRISHNAMOORTHY, IV Hons.

"THE year 1954 has been significant in South-east Asia's political history in that it has been marked by the arrival of the Five Principles," says the *Eastern Economist.* "These principles are not exactly similar to the famous Indonesian Pantja Sila, although they look akin to one another, particularly in name. . . . . . . Nevertheless the fact that the Indian Five Principles are analogous to those of Indonesia is significant. For this is a philosophy which has roots over the whole of South-east Asia. . . . . . These are not emotional roots only. . . . . . They have already shown that they belong not to the realms of idealism; they are directed very much at practical results. The acceptance of the Five Principles by India, Burma and Indonesia in relation to their dealings with China is proof enough that here at least is a philosophy which works."

Sources

The Panch Shila is neither an exclusively Indian nor even a modern innovation. The vision of all the nations of the world living together in perfect friendship and mutual concord, notwithstanding the inevitable political and ideological differences between them, has inspired man from time immemorial, and it is the cherished dream of all the politicians of today. Instead of merely pursuing a policy of non-alignment, India has given the concept, the form and substance of a new programme, "partly because it is in tune with the teachings of Mahatma Gandhi, a way of life which is true to the temperament and genius of the Indian people, moulded in the crucible of centuries of history, and partly because in the light of the rapid development of nuclear weapons the only alternative to Panch Shila is panch shila."

It is said to have emanated from the principle of tolerance of the Hindus, the Buddhists, and the Jains.

Gandhi proved the efficacy of tolerance in the realm of politics, by achieving Independence through non-violence, and by following the adage that "Peace hath her victories no less than war." And this principle has clung to Mr. Nehru's memory so vividly and so tenaciously that he cannot avoid it in evolving a policy of co-existence. It is likely that the Five Principles would not have found such force in the mind of Nehru had they not looked so akin in international terms to the doctrine of Ahimsa, with which in the national setting India's Prime Minister has been so closely associated.

The Five Principles

(1) Mutual respect for each other's territorial integrity and sovereignty.

(2) Non-aggression.

(3) Non-interference in each other's internal affairs.

(4) Equality and mutual benefit.

(5) Co-existence.

Wars solve no problems, but only create them. It is the demon of barbarity, which giving up all pretence, emerges with unconcealed fangs and teeth, ready to tear up the world and spread devastation. From one end to the other the poisonous fumes of war defile the atmosphere. This plague of persecution raises its head to create havoc and to desecrate man.

Hence the very survival of the human race demands peaceful efforts to solve international problems. To realise the dream of permanent peace, we must give up war.

But peace is not merely the absence of war. It is something positive. It is a way of life, and a way of thinking and action. Thus only can we create the real climate of peace which will lead to co-operation among nations. The peace that is envisaged in the Five Principles will be a reality only when human society is remodelled and made to live under one roof, where tolerance and justice wield supremacy in deciding international relations.

Panch Shila in Practice

"There is no denying the fact that India's philosophy of *Panch-shila* is to-day one of the most significant factors in international relations. Subtly but decisively its influence is being felt on world political trends; and with a growing number of nations favourably responding to its appeal, India's role as the acknowledged mediator between the East and the West is becoming more and more sharply defined. Although embodying nothing spectacular or essentially revolutionary, the policy of co-existence rings with a note of reassurance and a message of hope amidst the encircling gloom of world tensions and the ever-growing threat of nuclear warfare"

—*Eleuterio Soares.*

The first nation which accepted the Five Principles besides India was China. Our Prime Minister and the Prime Minister of China took the lead in this new approach, and the example of China has been followed by many countries of the world. Burma, Indonesia, and even Russia, are advocates of this new philosophy.

In the Bandung Conference, which has been acclaimed as "one of the most outstanding events of the modern era", this philosophy was put to the test, and to the expectation of many as well as the disappointment of a few, it proved a success. For there were assembled the blacks, browns, and yellows, hitherto considered as the White Man's burden. They assembled there not to share the spoils of the victims, but to prevent themselves from being victimized.

Those who were disappointed at its success asked: "What made you assemble there? After all, what is common between India and Gold Coast, or Pakistan and North Vietnam, or China and Turkey? Political, social, cultural, religious or geographical unity was missing among the participants. So nothing except the thread of fate can keep them united" The thread of fate they thought was weak, and hence they concluded that the fall was imminent.

So spoke the opponents of the Panch Shila philosophy. But the exponents replied: "The foremost factor which unites all of us is that even from the selfish point of view our interest lies in peace."

At the Geneva Conference when the four great statesmen of the world emphasised that there should be disarmament, and that the atom should be driven into constructive channels, they all had in mind the five principles, though they did not outwardly subscribe to the doctrine. The August assembly at Geneva for disarmament purposes, the independence of East Germany, the return of the German prisoners from Russia, all bear testimony to the greatness and efficacy of Panch Shila.

But in spite of the wide popularity of this principle, there are some who criticise it as a pro-communist stunt on the ground that it favours communist countries like Russia and China. According to them, if Communism is allowed to grow, it will engulf the whole of Europe and penetrate into their continent, and hence they regard all peaceful relations with the Communist world as "unwise appeasement."

But the truth is that our principle is not a pro-communist one. Because it is favoured by the Communists it should not be concluded that Panch Shila favours Communism. The Five Principles of Panch Shila are excellent in themselves, they show the ingenuity of the Indian people, and are a fruit of the traditional Indian policy of tolerance. Their success will be a tribute to the prudent statesmanship of Mr. Nehru, with whose words in Parliament on 17 September, 1954, we conclude:

"India's policy is to try to develop an area of peace in Asia, and elsewhere if possible."

Tit for tat—
or
attendez-vous a la pareille

By S. KALYANASUNDARAM, II U.C.

AUTREFOIS vivait un homme appelé Gopalan. Il vivait dans une petite ville. Il voulut établir une bibliothèque dans cette ville. Aussi il fit le tour de la ville demandant des dons pour établir cette bibliothèque. Tous les hommes pensèrent que Gopalan voulait les tromper. Aussi ils ne donnèrent rien. A la fin, Gopalan perdit sa patience. Il voulut leur donner une leçon.

La ville, dans la quelle il vivait, était pleine de moustics. Les hommes essayaient de se débarasser d'eux en se servant de diverses espèces de médecines. Mais il n'y avait pas de signe que les moustics étaient détruits. Tous les jours les moustics croissaient en nombre. Aussi Gopalan trouva un projet industrieux. Il alla à Madras, changea son nom en Balam et publia dans les journaux qu'il avait des poudres qui avaient comme effet de détruire les moustics si on s'en servait à propos.

Pas même une semaine avait passé, les hommes, parmi lesquels le Gopalan original vivait, envoyaient à Balam de l'argent pour envoyer de la poudre immédiatement. Tous les jours Balam recevait de l'argent si bien qu'il devint riche en une semaine. Mais après qu'une semaine fut passée, beaucoup de lettres vinrent à Balam disant que le nombre des moustics avait doublé depuis qu'on se servait de sa poudre. Alors Balam écrivit dans les journaux comme il suit. "La plupart des hommes ne connaissent pas la méthode d'employer ma poudre. Je la donne ici. D'abord, attrapez un moustic par ses ailes. Puis grattez son ventre doucement pour le faire rire. Quand il rit, prenez une pincée de ma poudre, mettez-la dans sa bouche, et étranglez-le jusqu'à la mort—Ainsi en prolongeant le même procès tous les moustics seront détruits." Les hommes de la ville se fachèrent contre lui. La plupart d'eux avait perdu l'eur argent en achetant cette poudre. Quand ils lancèrent un procès contre Balam, il n'y avait à Madras personne portant le nom de Balam.

Eclipses of the Sun

By T. RAGHAVAN, Post-grad.

VERY few phenomena in Nature can rival the gorgeous spectacle when the earth is gradually shrouded in darkness and around the smiling orb of day there appears a matchless crown of glory, the corona. Nor can any other science rival the wonderful precision of an astronomer who can predict hundreds of years in advance the exact hour and minute at which an eclipse will take place and the locality on the face of the earth where such an eclipse will be visible.

Taking the earth as a whole, there are more solar eclipses than lunar in the approximate ratio of 4 : 3. But for eclipses visible from any one place, the question is entirely different. At best a limited portion of the globe can witness a partial solar eclipse, while a total solar eclipse is observable only in a very restricted path. On the other hand, a lunar eclipse (which is caused by the passage of the moon into the shadow cast by the earth) must be visible to every locality on the earth where the moon itself is visible. The maximum number of eclipses in a year, both solar and lunar, is only seven. The minimum number of eclipses is only two, both solar.

It was with highly laudable ingenuity that the Chaldean astronomers discovered that eclipses recur after 18 years and 10 or 11 days, depending on the number of leap years in the interval. This remarkable cycle is the result of a relationship between the length of a lunar month and the period of revolution of the moon's nodes. Owing to the regression of the nodes along the ecliptic, eclipses will recur in a very long sequence until the sun has had time to move so far away from the node that it is outside the ecliptic limit.

There is an additional relationship which makes the saros very interesting. An eclipse of long duration follows an eclipse of long duration, the change from one eclipse to a second eclipse of the sequence being small. This is the result of the fact that the moon's distance and consequently its apparent diameter has changed very little in the interval of a saros. Thus in six total solar eclipses of long duration in the present century, we find the following semi-diameters of moon and sun calculated by Sadler at the Nautical Almanac Office :—

DATE	DURATION MINUTES	DIAMETER	
		SUN	MOON
1901, May 18	6·5	15′ 48″·4	16′ 36″·1
1919, May 29	6·8	15′ 46″·6	16′ 37″·5
1937, June 8	7·1	15′ 45″·2	16′ 38″·7
1955, June 20	7·2	15′ 44″·3	16′ 39″·5
1973, June 30	7·2	15′ 43″·8	16′ 40″·5
1991, July 11	7·3	15′ 43″·9	16′ 41″·2

The remarkable character of the saros is best seen by comparing the dates and durations in successive intervals of 18 years and 11 days. For example, on April 8, 1902, there was a partial solar eclipse. It was the last of a cycle of 76 eclipses, beginning on A.D. 550 Jan. 3, when a partial eclipse was observed near the South Pole. It was followed by 12 partial eclipses gradually increasing in size and travelling northward from A.D. 568 to A.D. 766. They were followed by 19 annular eclipses from A.D. 784 to A.D. 1090; then by 5 eclipses from 1108 to 1181 which were annular or total, then by 19 total eclipses from 1199 to 1523, and finally by 21 partial eclipses from A.D. 1541 to 1902 which became less and less till the shadow in 1920 just missed the North Pole.

A similar phenomenon is noticeable in lunar eclipses also.

Another remarkable feature in the saros is the regular change in longitude at successive eclipses. In the interval of 0·32 day the earth turns through nearly 120° and the eclipse tracks are displaced westward by approximately this amount.

The total solar eclipse is, in fact, the ne plus ultra of grandeur in Nature. For a short time after the commencement of an eclipse, no appreciable diminution of light is noticed; but an observer provided with darkened glasses can notice a black sector on the west side of the sun. This gradually increases for about an hour and a half. The temperature falls, and a slight change in the colour of the light gives a weird aspect to the landscape. The total obscuration arrives very suddenly, bringing with it a dramatic change. Red flames, called prominences, are seen proceeding from the darkened disc of the sun. A white aureole, called the corona, encircles the disc with streamers, stretching in some directions to several degrees. Some of the brighter stars and the planets Mercury and Venus appear in the sky. The spectacle lasts but a few minutes and ends as suddenly as it began. A bright crescent appears on the west of the sun which increases till the eclipse is over in another hour and a half.

The shallow layer of glowing gases (the chromosphere) surrounding the sun's globe, the gigantic upshoots (the prominences) from the layer, and the tenuous atmosphere of the corona extending to several million miles from the sun's surface are entirely drowned by the ordinary daylight and are seen at their best only during a total eclipse. The study of these appendages has therefore been slow and tedious. Totality can never last more than 7½ minutes and usually much less, while a cloud no larger than a man's hand can spoil everything. During the last century, the corona has been available for observation for a total period of not more than 3 hours. In spite of the amazing achievements of modern science which at times seems to accomplish the impossible, no success has attended the scientists' efforts to observe the corna outside of an eclipse. On account of the entrancing beauty of the phenomenon, each eclipse is assiduously observed; but success commensurate with the labour involved is not always forthcoming.

Einstein's theory of relativity, which is regarded as the greatest triumph of mathematical reasoning since the time of Newton, requires that a ray of light, like a material particle, should be deflected from its normal course in a straight line when it passes near a heavy body like the sun. The only possible method of verifying this theory observationally is by photographing the stars surrounding the sun, which is possible only during a total eclipse. Therefore, scientists flock to places where totality is visible; and in spite of failures due to unfortunate weather conditions, they have come to the conclusion that the displacement is at least as great as 1·75″ possibly a little greater, the slight excess being attributed to atmospheric causes. It is unquestionably very difficult to obtain the exact value by observation. A good field of stars of 2° to 3° surrounding the sun is a *sine qua non*, with a number of them sufficiently near the sun's limb.

The total Solar Eclipse of June 20, 1955

The total obscuration of the sun that happened on June 20 last was one of the six eclipses of long duration of the present century. The path of totality lay across a part of Ceylon, Siam and the Philippines, and over distant wastes of water beginning in the Indian Ocean hundreds of miles north-east of Madagascar and ending in the Pacific hundreds of miles north-west of New Zealand. In the Philippines the duration of the totality was 7′ 9″·10, 22″ less than the theoretical maximum; in Ceylon the totality lasted for 4 minutes. The extreme rarity of a total solar eclipse at a place cannot be better brought out than by the fact that this period of totality has been surpassed in Ceylon only on June 13, 717 A.D. and the next total eclipse of equal duration observable in Ceylon will be on June 25, 2150 A.D. A total eclipse of the longest duration, 7 mins. 30 secs., will be observed in India in July 2168 A.D.

Though the period of totality was longer in the Philippines than in Ceylon, the latter was given more prominence. For in Ceylon the eclipse occurred in the morning (totality at Colombo was between 8-11 and 8-15 a.m.) but everywhere east of Ceylon the eclipse occurred later and later in the day; and the older the day gets, the more chances there are for the formation of clouds. Thus Ceylon, by virtue of its position, combined a reasonably long total eclipse with the best possible chances of a clear sky.

The eight teams of scientists from various countries who camped in Ceylon with mighty instruments, left very little to chance. They chose the rain-shadow regions that lay in the central line of totality. As a precaution against the unsuitable season to live in jungles, they provided themselves with the necessary medical aid and were ready with their mighty instruments mounted properly to observe the great event.

The Indian team, under the leadership of Dr. Das of the Kodaikanal Observatory, had a very large general programme of attacking eclipse problems under four heads :

(i) various direct studies of the Corona ;

(ii) the effect, if any, of the sun's magnetic field upon that of the earth ;

(iii) the effect of the sun on the earth's ionosphere ;

and (iv) Radio-astronomical studies.

The main concern of the Swiss team was to observe the Corona by three methods—photometry, polarization, and spectroscopy. The London University team, consisting of two, was concerned with accurate photometry of the outer Corona. The American team was interested in the study of the effect of the Coronal emissions on the winds of the upper air. The one-man French team was to study the physical nature of the Corona and to distinguish the true constituents of the solar Corona from the infinitude of particles of inter-stellar dust that infiltrate and surround it and reflect to us what we call the "zodiacal light." With great eagerness and hope they all waited for the 20th June and at last it came.

But alas! Nature is a capricious customer. She is reluctant to reveal all her hidden treasures to man all at once. That morning, clouds began to gather in the sky and completely obliterated the sun's disc. Though the scientists managed to get a view of the sun through the chinks in the clouds, the expedition, on the whole, ended in dismal failure. The American team was comparatively fortunate. It was reported that they had a fairly clear view of the sky and thus succeeded in their observations.

Round our Teppakulam

By A. SAMSON, II U.C.

RAJAGOPALAN, a close friend of mine, paid me a visit two months ago. He had never been to Trichinopoly, but he knew the historical importance of this ancient town. He had been imagining that it would be a beautiful little town with many objects of curiosity and therefore worth seeing. But what was his impression when he left it, is a point upon which I cannot arrive at a definite conclusion.

On the evening of his arrival here I wanted to take him round the town. But he preferred to visit the various places of importance at leisure the next day. So I took him for an evening stroll round our Teppakulam.

As we approached the Main Guard Gate we were moved to pity at the sight of a leper who seemed to be in deepest distress and pain. He was imploring the compassion of the passers-by in a pitiable voice. A rich man, in his gayest dress, came that way and the leper asked for some alms. The young man turned his face away from him and threw at him a half-anna piece, remarking loudly that such beggars were only fit to die, for they were a burden to society and especially to people like him. The poor man heard these words and groaned in pain, for the rich man's contempt was more painful to him than his own burning sores. His eyes blazed with anger as he picked up the coin and was about to fling it at the giver's face. Tears to human suffering are due; Rajagopalan approached him with a kind smile and gave him some money. He accepted it gratefully and was greatly consoled. But more than the money the smile on my friend's face made him forget his pain and sing joyfully.

We passed through the gate and the first thing that drew our attention was a crowd that stood round a man who seemed to excel even the world's greatest orator in fluency of words. These people were listening to him with their mouths open. He was a palmist who offered to tell the past, the present, and the future merely by looking at your palm. The usual course of education needed for this profession is to memorise certain passages of good tidings and practise delivering them at such terrible speed that it will keep your hearers docile and spellbound. Usually the palmist foretells happy events and seldom any misfortune. Even if he does mention it he always takes care to add that the misfortune will soon pass. So many flock to him every day to consult him on their fortune and succeed in their business that even the oracle at Delphi could not have had greater fame and influence than this modern oracle. He not only earns his bread but becomes rich in a year or two. And I actually know a man who has become very rich by this profession. He comes in the evening at a fixed time and after dealing with a few customers goes away with his pocket full of money.

We left the crowd and walked along the footpath a few yards. The red rays of the setting sun made the Rock Fort shine brightly. My friend said that the Rock Fort had contributed much to the beauty and importance of Trichy, and the pointed spire of our College church had added to its magnificence. I was admiring the reflection of the Rock Fort and Clive's Hostel in the Teppakulam water when my friend cried in amazement that the water was *green*. I told him that the people of the town were convinced that it was the sacred water from the Ganges. Gutters empty into it and the water has rotted with age and filth; but no one profanes it by cleaning the tank. Our Municipality too has not dared to clean the sacred water.

We then continued our walk. I answered a few questions of my friend about the Tutorial Colleges that live on the two ends of the Teppakulam. I told him that they were really a blessing to those unfortunate students who fail in their examinations. A gentle breeze was blowing from the north-west. We were approaching the south-eastern corner of the Teppakulam. We pulled out our handkerchiefs, stuck them into our noses, and took to our heels. We actually ran and did not stop till we reached the other end of the tank. It might be unbecoming for University students to run on public roads, but it would have been worse to faint in public.

We turned into a lane to come to the northern side of the Teppakulam. Here we could not walk bare-footed. No wonder foreigners say that Indian towns are dirty.

We reached the north-west corner. There was a policeman examining a motor-car that had dashed against an electric post. He was waiting for the arrival of some higher officers for its thorough investigation. It was half past six by this time. A milkman rode on his bicycle without a light and the policeman called after him to stop. He did not stop but said in passing that there was no brake on his bicycle. We could not help laughing, and the policeman looked a little foolish.

Amidst the Flood-Stricken

By A. KULANDAISAMY, III Hons.

WHO does not know about the unprecedented cyclone which occurred towards the beginning of December 1955 in the districts of Ramnad, Madurai, and Tanjore? How the tragic scene filled the pages of the dailies! It carried away hundreds of lives as well as destroyed their properties. When all these fearful things were happening, we were here deeply engrossed in our studies, busy preparing for our examinations. Still, our young hearts were throbbing with profound sorrow and wished to run to the spot and render all the help we could. The golden principle, 'Duty first', restrained our emotions. Even after our examinations we could not render our service to the people in the gale-hit areas. For we had already planned to go and do social service in Annamangalam, Tiruchi Dt. Moreover, we did not at all think that our help would be so much required.

On 12 January a telegram was sent to Rev. Fr. Rector earnestly requesting him to send a group of stalwart young men to render help to the afflicted. Pongal festival was fast approaching for which there were many plans in the air. But the call of charity was an appeal stronger than anything else and out we went to meet our suffering brethren of Ramnad.

Fifteen of us left Tiruchy for Ramnad. As we passed Karaikudi and some places in Ramnad, we actually realised the gravity of the damage. The gigantic trees were kissing the soil. The telegraph posts were fallen on the ground. An all-prevading devastation was seen everywhere.

From Devakottai, the de Britto High School bus took us to the affected areas. As we passed along, we found that all the roads had been completely washed away. Whenever we had an occasion to speak to the people—and indeed we had many—we heard most pathetic stories which could have melted even the hardest of hearts. Here and there we saw heaps of palmyra trees. At last we reached our destination. It is called Vettukulam. For the sake of convenience we divided ourselves into two groups. One group remained in Vettukulam itself under the guidance of Rev. Fr. P. C. Anthony, S.J. The other was sent to Savariarpatnam under the leadership of Rev. Fr. Anselm Miranda, S.J. Rev. Fr. Fournier, the leader of our camp, was to supervise both groups.

The people of these villages were very anxious to get help from us. Normally, they have hardly 18″ of rain in the whole year. But now in less than four days an unimaginable rainfall of 24″ had filled the area.

There is a lake near Savariarpatnam called 'Rajasingamangalam', the largest in Ramnad Dt. It is fifteen miles long. As it began to rain people saw this lake filling up. There was reason for them to be happy. But soon to their utter disappointment they found the banks of the lake being washed away. In a few hours' time, the large lake itself had vanished! The Bay of Bengal is near here. People were simply bewildered. They ran to the nearest strong buildings and churches, seeking refuge against the fury of the waters. To some, only palmyra and tamarind trees were available. Imagine them on such precarious perches for three long days. Who on earth could think of food at that time? Many of their livestock had been carried away by the floods.

Our services were required in no less than thirty villages. Hence every one of us had to go to two or three villages to encourage the people, sympathise with them, and help them to the best of our ability. Incidentally, I must point out another tragedy more gruesome than the first, namely the foul game played by some of those who were in charge of distributing food and clothing to the flood-stricken. Communalism in the name of caste, religion, and race played havoc even here. The only need we felt was union and co-operation among the people. If there had been such co-operation and co-ordination, no difficulty of this type would have occurred.

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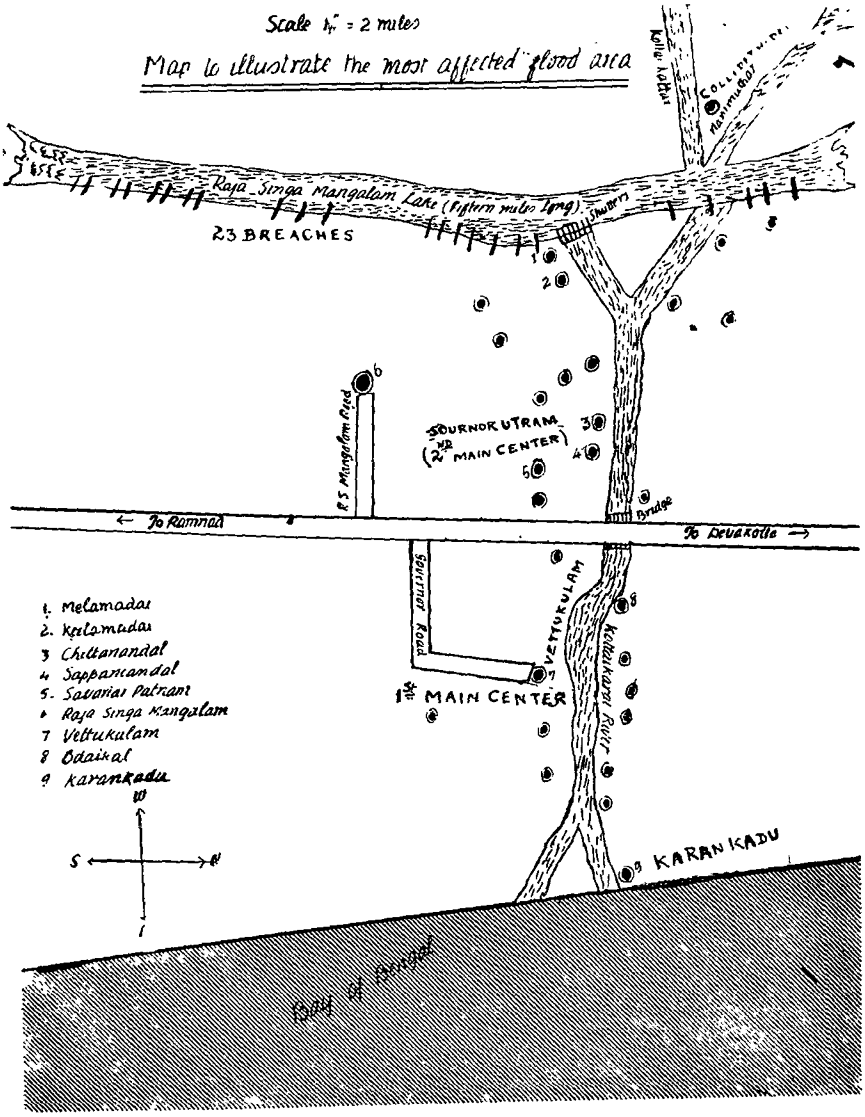
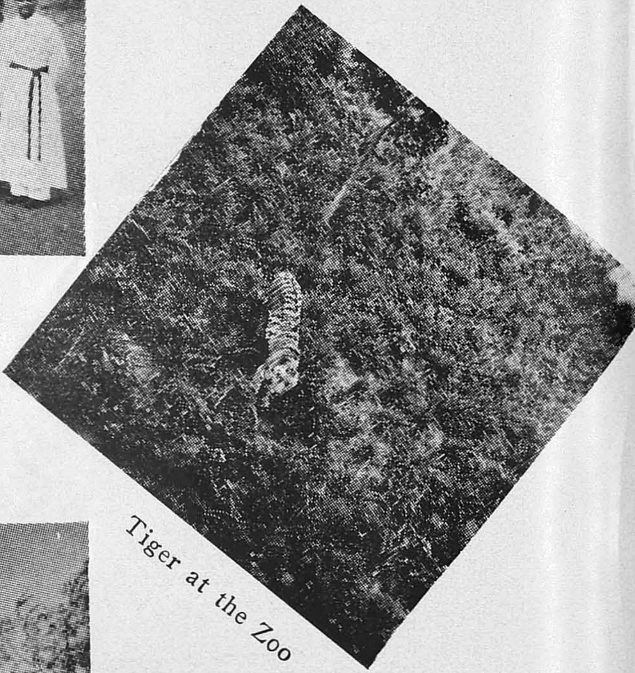


Flood-affected Ramnad

PUBLIC LIBRA...
NOV 1956
MADRAS

Team at
Medical College
TRIVANDRUM

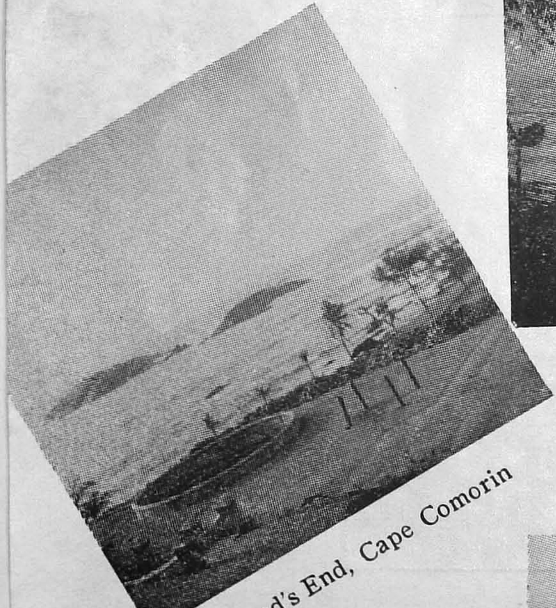
Lion and Lioness



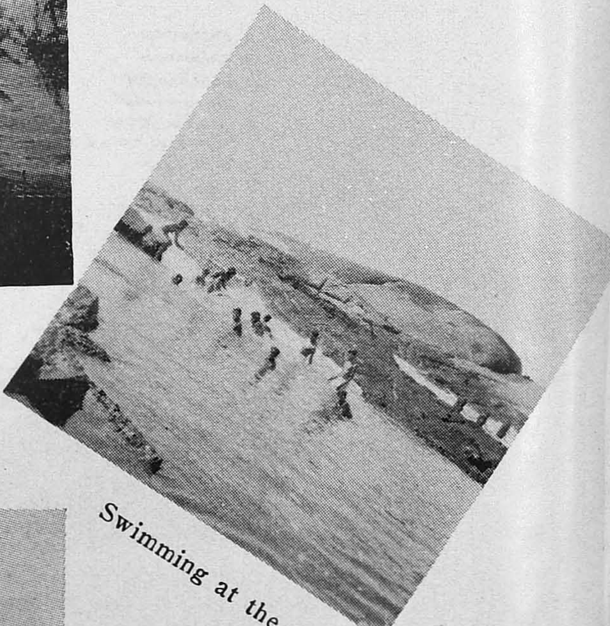
Tiger at the Zoo

Photos by
K. SIVARAJ, III B.Sc.

Sunrise at Cape Comorin



Land's End, Cape Comorin



Swimming at the Cape

'Relaxation'

FOOTBALL TOUR

We had to face this problem as well. So we first took a census of every village and then proceeded to our work. After that we established gruel centres wherever possible and began distributing rice, butter, oil, milk-powder, and clothing.

The next problem was to know which was the most affected area and to help the people there. It was therefore decided to draw a map and then proceed with the work. We went up to see what the lake then looked like, having lost its banks all round. It was a sorry sight.

The villages of Melamadai, Keelamadai, Vallamadai, Sappaniandal, and Vettukulam needed most help. When we visited these places, we found very few traces of human habitation. Now people are building new huts with the paltry sum of money given them by the State Government. People, of course, are in great need of help to till the soil and build at least huts. They need to buy cattle and a host of other things. It is consoling to note that the Government has put its finger on the pulse of the flood-stricken areas and has come forward to grant loans to the people on easy terms.

Just as we had plunged into our work, we heard of our Governor Sri Prakasa's visit to the gale-hit areas on 17 January. So we were told to mend the roads and erect a *pandal* at Vettukulam He was extremely happy to be in our midst. One of our leaders, Fr. Anselm Miranda, S.J., requested him to render a very special help to the villagers of that area. The Collector of Ramnad promised to grant loans and to help them with machines.

It must be remarked that it is no use giving them merely loans and machines. For unity among the villagers was, and is even now, conspicuous by its absence. So with the help of the headman of each village we organised a committee to enable the people to get all they want through their leader. Our Government has also advised the people to approach the District Collector for help without any hesitation. It is also easier for one man to approach the authorities than for a whole village. Further, by this system of committee and co-operation, the people will learn to depend upon themselves.

The period of our service came to an end much sooner than we expected. It is a pity that we were not able to render the people as much material help as we wished to. But our encouragement and consolation must have brought sunshine into their sorrow-stricken lives. We were one with them ; we shared their sorrow. They realized that they were not after all completely forsaken and abandoned. They felt really encouraged and gradually resumed their normal work.

The people of the villages seemed to have felt the parting more than we, and so even without our knowledge they arranged a send-off

as a token of their gratitude. They shouted: "Cheers to the heroes of St. Joseph's College; Hip-Hip-Hurrah!"

The help given us by the students of de Britto High school needs special mention. Words fail me to thank Rev. Fr. Machado, S.J., their Headmaster.

Where did we get the stamina for all these things? The Social Service Institute and the Social Service League supplied us with fervour, enthusiasm, and the spirit of brotherly love. But, above all, the sublime words of Our Lord Jesus: "Whatever you have done to the least of My brethren, you have done it to Me", are ringing in our ears. These words made us forget all hardships of relief work. We came back with the satisfaction of having done our best for the flood-stricken.

A Chemistry Tour

By U. HARINARAYANA RAO, IV B.Sc.

ONE fine morning we, Senior B.Sc. students of Chemistry, were delighted to see on the Notice-board an announcement of an excursion to Mysore State. As soon as the examination was over on Sept. 8, 1955 we met at Trichy Junction. The party was led by a Lecturer and a Demonstrator.

The train steamed out at 4-45 p.m. and reached Erode at 10 p.m. There we boarded the Malabar Express. At Jalarpet we got into the Bangalore Mail which reached Bangalore early next morning. After breakfast we reached Mandya by the Hubli Mail at 10 a.m. and putting our things in the cloak room we started for the Mandya *Sugar Factory*. Even from far we felt the smell of the cane-sugar. On reaching the Factory we were taken round by the chief chemist who explained the process of preparing cane-sugar from sugar-cane.

The canes are sliced and crushed between iron rollers to extract the juice as far as possible in a hydraulic press. The juice thus obtained is then transferred to defecator tanks heated with steam coils and then mixed with lime. Sulphur dioxide is passed and the solution is filtered.

The filtrate is evaporated in vacuum pans to crystallise the sugar. The crystals are then separated from the brown mother liquor known as molasses by means of a centrifuge. The sugar obtained is brown in colour. The colour is removed by treatment with ultramarine suspended in water.

From there we were taken into the distillery section where alcohol is prepared. The molasses, from the sugar formation, is diluted and fermented with yeast. An enzyme present is yeast converts the cane-sugar into a mixture of glucose and fructose. Another enzyme present in yeast ferments the glucose and fructose to alcohol and carbon dioxide. The carbon dioxide evolved is collected and used for the preparation of aerated waters. The dilute alcohol obtained is concentrated by distillation in special stills and purified to get absolute alcohol.

Now we found ourselves at the station, got into a passenger train, and soon the city of Mysore was in sight. A fine choultry was the place of our stay. After a meal we went to rest.

Next morning we found ourselves in the midst of birds and animals in the Zoo. We spent about an hour in the company of monkeys of different types, hippopotami, deer, and other animals.

At noon we started for Belagula, a place thirteen miles from Mysore city, to visit the Mysore Fertilizers where ammonium sulphate, magnesium sulphate, and calcium superphosphate are prepared. Ammonia is synthesised from hydrogen obtained from water by electrolysis and nitrogen from air. Sulphuric acid is prepared by the contact process. Sulphur is burnt to sulphur dioxide which is then oxidised to sulphur trioxide using vanadium pentoxide as the catalyst. This is absorbed in concentrated sulphuric acid and diluted with water to get sulphuric acid. The acid is then suitably reacted with ammonia to get ammonium sulphate. Magnesium carbonate, obtained as magnesite from natural deposits, is reacted with ammonium sulphate to form Epsom Salt. Calcium superphosphate is prepared by the action of sulphuric acid on calcium phosphate.

Next we visited *Krishnarajasagar,* which is only two miles from Belagula. Krishnarajasagar is Kannambadi Dam. The smiling gardens, laughing fountains, and flowing waters of the beautiful Brindavan Garden are really enchanting. Brindavan Garden was a remarkable sight when it was illuminated. I do not find words to explain the splendour and beauty of the scene.

The next day being a Sunday, we could not visit any Industry. Therefore we went up the *Chamundaswari* Hills, and came down to find ourselves inside *Lalitha Mahal.* This is a rest-house for the most distinguished guests. I need not sav much about the palace except that is a heaven on earth.

Next morning we visited the *Sandalwood Oil Factory* and the *Mysore Silk Factory*.

In the Food Research Institute which we visited in the evening we found a number of chemists engaged in finding out the food and nutritional values of various materials. Artificial food materials possessing a higher food value than natural ones have been prepared in the Institute. We also tasted the artificial buttermilk prepared from groundnut kernels.

The *Mysore Iron and Steel Works* at Bhadravathi was the next important factory we visited. The iron ore, haematite, mixed with limestone and coke or charcoal in the required ratio, is smelted in a huge blast furnace. The tapping of iron from the blast furnace was a grand sight: we were thrilled to see red-hot molten iron rushing out of the outlet at the bottom of the furnace into trenches made in moist sand where it cooled down into long bars of iron.

From there we moved to the *Cement Factory*. Cement is obtained from a suitable mixture of lime-stone and clay. The mixture is powdered and made into a paste with water. It is burnt in a revolving furnace to obtain cement clinker which is then mixed with some gypsum and finely powdered to obtain cement.

The same night we started for Bangalore and reached it the following morning.

The *Indian Institute of Science* is a grand institution. We went round the various sections but we could not understand several technical details. In the metallurgy section we were shown certain specimens of ores got from various places in India especially from Trichy district. We visited the Industrial and *Testing Laboratories* where different kinds of medicine are being prepared. The method of sealing of certain medicines was really interesting.

Next morning we went round the city and were captivated by Lal Bagh and Cubbon Park. Then we visited *The Government Sandalwood Soap Factory*. Coconut oil is heated with caustic soda solution with constant stirring till the soap is formed. After this process the soap is salted out and finally purified. This soap is mixed with sandalwood oil got from Mysore; then it is pressed into cakes and packed.

As all earthly joys fade away, our glorious Excursion also met its inevitable end; but every one set his face towards home with his memory full of happy experiences and pleasant thoughts which can never be effaced from the mind, however numerous be the years to come!

On the Concepts of Supply and Demand

By N. JAGANNATHAN, IV Hons.

Introduction

THE phenomena of Economics have long been recognised as possessing characteristics similar to those observed in the phenomena of Mechanics. The similarity does not cease with having surfacial analogies, but runs deeper to have similar mathematical theory and the same mathematical equations and functions. Encouraged by this, many have attempted to formulate the laws of Economics in terms of mathematical postulates and to interpret the equations to give an explanation of the behaviour of economic variables. All this may sound strange to some ears. But, in fact, this is no new method, only that there is a renaissance now. In 1838 Augustin Cournot published his monumental work: "Researches into the Mathematical principles of the theory of wealth." Marshall put his equations in an appendix at the end of his treatise, which was adopted and amplified later by Paredo and Walras. With the development of Statistics in this century this method of probing into the perplexities of Economics has taken a long leap. Here we shall consider the early parts of this expanding Econometrics.

The relation of supply and demand is regarded as a basis for practical problems of value and it acts as an underlying backbone, giving unity and consistency to the main body of economic reasoning. We shall consider the concepts of supply and demand from two angles: first as a part of Economic Statics, i.e. not involving variations in the time variable and thus dealing with equilibrium conditions; and then as a part of Economic Dynamics—mainly concerned with the variations in the Economic time series.

The Concept of Demand

To begin with, let p be the price of a commodity x, y the amount purchased, and $Q(u)$ the cost of manufacturing and marketing u units of x. Now the demand for anything at a given price is the amount of it which will be bought per unit of time at that price. Here y may be spoken of as the demand. The total revenue from the sale of the commodity, $R = yp$. The quantity $\pi = yp - Q(u)$ is the profit function.

It is a matter of common sense that demand will not always be a constant. In fact it is a function of price. Thus if a commodity is distributed free of charge, a certain quantity y_0 will be demanded. y_0 is always finite, but may be very large. Thus we may cite as examples the quantity

of water consumed in a certain area when water supply is not metered; the amount of electricity consumed if the cost is nine pies per unit, etc. This demand y_0 is termed as the maximum demand. On the other hand the amount of electricity utilised diminishes when the price is increased. Theoretically, there will be so high a price as p_0 when demand would become zero. p_0 is called the price of zero demand.

Plotting prices on the vertical axis and demand on the horizontal axis, we get curve I, in Fig. I. Most of the demand curves slope downwards.

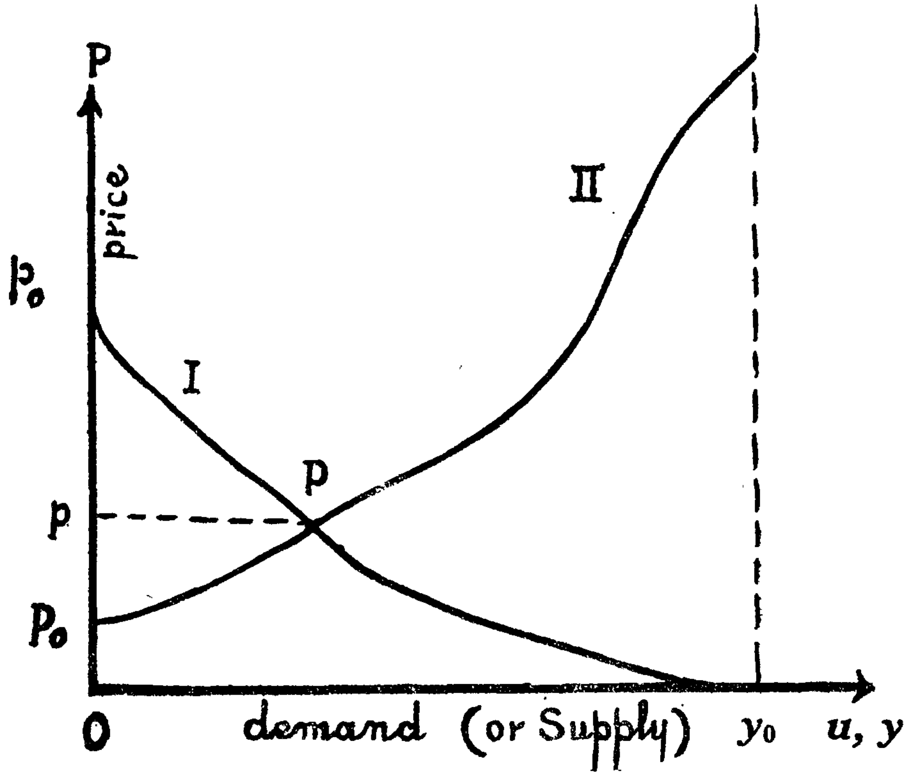


FIG. I. Curve I is demand $y=y(p)$
Curve II is supply $u=u(p)$

This can be interpreted as, other things being equal, more will be bought at any given price than at a higher price. There are some demand curves, however, that slope upwards for part of their course, indicating that more will be bought at a higher price, per unit of time. This is due to varied reasons like the ignorant belief that higher price means higher quality and people's panicky desire to buy when prices rise lest they should rise more.

Supply

We shall now turn to the question of supply. The supply of anything at a given price is the amount of it that will be offered for sale per unit of time at that price. By an argument analogous to the one given before, one can realise with ease that supply also varies according to price. Thus there will be a price P_0 so low that it will be highly unprofitable to produce a certain commodity. P_0 is called the price of zero supply. Let

the available supply be denoted by U. Taking the horizontal axis for supply and retaining the price axis as before, we get the supply curve as curve II in Fig. I. From the figure we surmise that in general u increases with p. This is borne out also by the law of supply, viz. supply varies directly with price, other things being equal. The supply curve can be more complex in some respects. In some cases prices may run so high that the available supply will diminish. For example, wages might increase to a point where labour can earn enough for its standard of living with shorter hours of work. Then it might prefer leisure to work at any price. Now the supply curve will actually turn back with increasing prices. Mathematically this will be represented by a double valued function of price.

Elasticity of Demand

We have seen how demand varies with price. It is borne out by observation of economic data that the demand for some goods is much more sensitive to price changes than other goods. It is now our object to measure mathematically this sensitivity and the measure is found in what we call the elasticity of demand. Thus it is a measure of a change in the amount purchased in response to a change in price This concept of the elasticity of demand owes its origin to Cournot. Giving a resumé of his theory, let the demand curve be $y=y(p)$. $py(p)$ expresses the total value of the quantity annually sold. Since the demand function is continuous, this one also is continuous. $py(p)=0$ if $p=0$ for the consumption of any good is always finite. In theory, therefore, p can have so small a value that $py(p)$ varies imperceptibly from zero. Again, it vanishes when $p=\infty$. Hence p can have so great a value that the demand for a good and its production will cease. It is clear now that $py(p)$ first increases with p and after some time it decreases when p is still on the increase. Then there must be a value of p for which $py(p)$ is maximum.

Differentiating w.r. to p the function $py(p)$, we get, $y(p)+py'(p)$— (1), using Lagrange's notation $y'(p)$ denotes the first differential coefficient of the function $y(p)$. If $py(p)$ is a maximum, (1) = 0.

i.e. $y(p)+py'(p)=0$. Hence the value of p is got.

This can be investigated in another way as well. Let the demand curve be $y=y(p)$. The elasticity of demand is measured by the following ratio:

$$\eta = \frac{\text{change in amount purchased}}{\text{change in price}} : \frac{\text{amount originally purchased}}{\text{original price}}$$

$$= \frac{dy}{dp} : \frac{y}{p}$$

$$(2) \quad \text{i.e. } \eta = \frac{dy}{dp} \times \frac{p}{y} = \frac{dy|y}{dp|p} = \frac{d(\log y)}{d(\log p)}$$

It should be noted that η is a pure number.

Since in the demand curve, Fig. I, $\frac{dy}{dp}$ measuring the slope is negative, while $\frac{p}{y}$ is positive, η can be expressed with a negative sign as well.

Put $\eta = -1$ in (2). We get $-\frac{dp}{p} = \frac{dy}{y}$.

or integrating, $\log py = c$ or $py = k$ = a const. $\cdots\cdots$ (3). Differentiate this w.r.t. to p,

$y + py' = 0$. i.e. $y(p) + py'(p) = 0$ which we got already from Cournot's theory.

Consider the case when the demand curve is a straight line. Employing the equation to a straight line,

$$\frac{x}{\text{intercept of } x\text{-axis}} + \frac{y}{y \text{ intercept}} = 1$$

where x, y are the variables, we have the demand curve as

$$\frac{y}{y_0} + \frac{p}{p_0} = 1 \quad (y,\ p \text{ being variables}) \cdots (4)$$

$$\text{i.e.}\quad y = y_0\,(1 - p/p_0) = \frac{y_0}{p_0}\,(p_0 - p) \quad \cdots\cdots (5)$$

Differentiate (5). $dy = -\frac{y_0}{p_0}\,dp$.

$$\therefore \text{ from (2)}, \ \eta = \frac{p}{y}\frac{dy}{dp} = \frac{-p}{p_0} \cdot \frac{y_0}{y} \cdots\cdots\cdots (6)$$

$$= \frac{y_0}{y}\,\frac{(y - y_0)}{y_0} \text{ on substituting for } \frac{p}{p_0} \text{ from (4)}$$

$$= \frac{y - y_0}{y}$$

and also $\eta = \frac{-p}{p_0 - p}$ if we substitute for $\frac{y_0}{y}$ in (6)

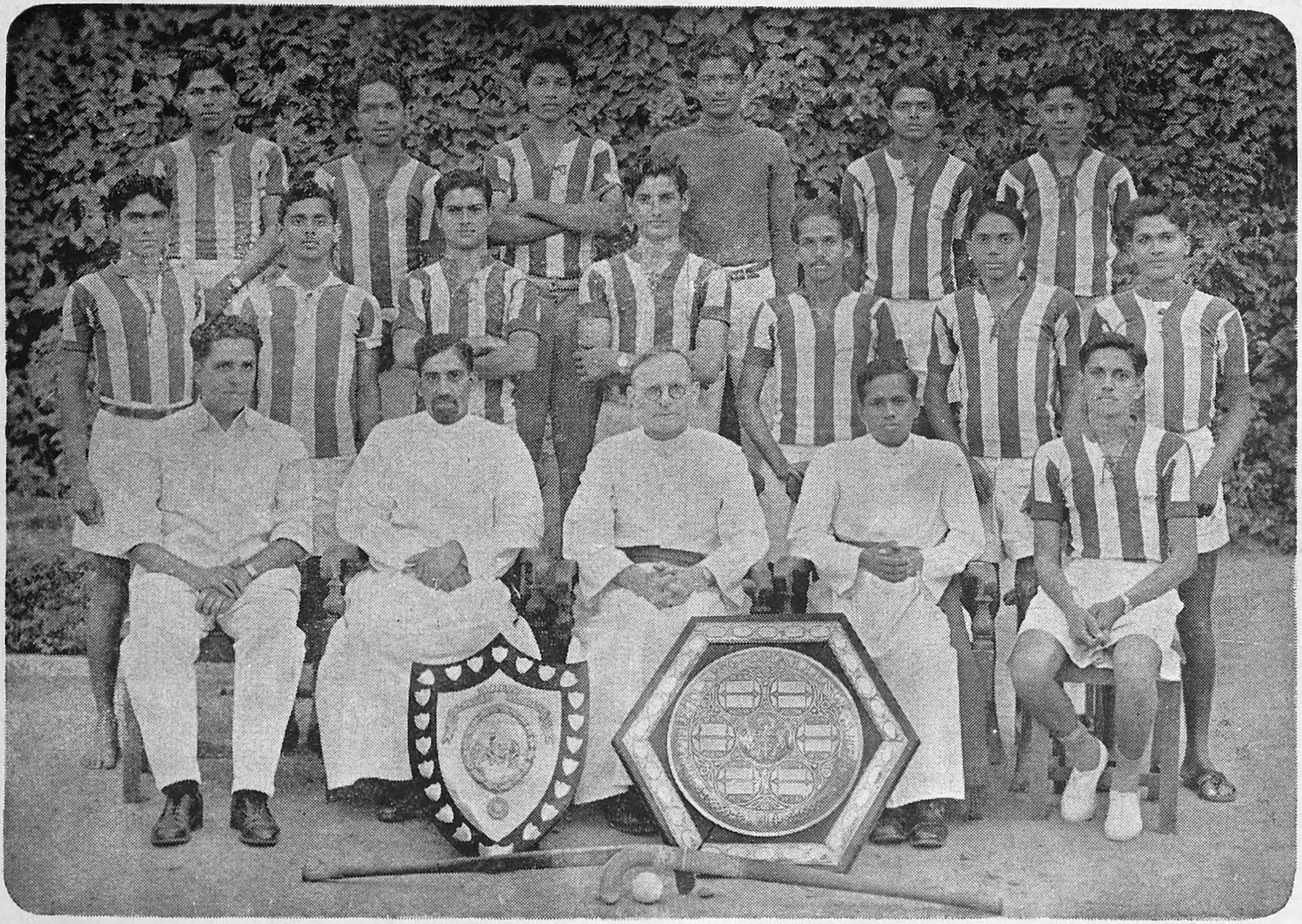
If η is a const. say η_0, we have from (2) $\frac{dy}{y} = \frac{dp}{p}\,\eta_0$ we shall have some interesting results from this.

Integrating this equation, $\log y = \eta_0 \log p + \log c$ or $y = cp^{\eta_0}$ – (7), c being a const.

Hence we observe that the demand curve is a simple parabolic one, if the elasticity of demand is a const. In particular if $\eta_0 = -1$, the demand curve is an equilateral hyperbola.

Cournot's Point

We shall go deeper into this subject and arrive at a theorem. Consider the elasticity of demand.



Our Hockey Team—(1955 -'56)

Winners of the Trichy District Open Hockey Tournament and the Inter-Collegiate Madura Divisional Finals

Sitting L. to R.—Mr. N. M. Joseph (Physical Director), Rev. Fr. A. J. Tamby (Games President) Rev. Fr. Principal, Fr. Rajanayagam, N. Desmier (Captain).

Standing L. to R.—Christopher Pandian, N. Gilles, E. Haliburn, M. Rodrigues, P. Vincent (Vice Capt.) S. Santiago, Edward Xavier.

Back Row :—S. M. Michael, K. Philomen Raj, C. Rozario, B. Arul Raj, S. Murugesan, E. D'Silva.

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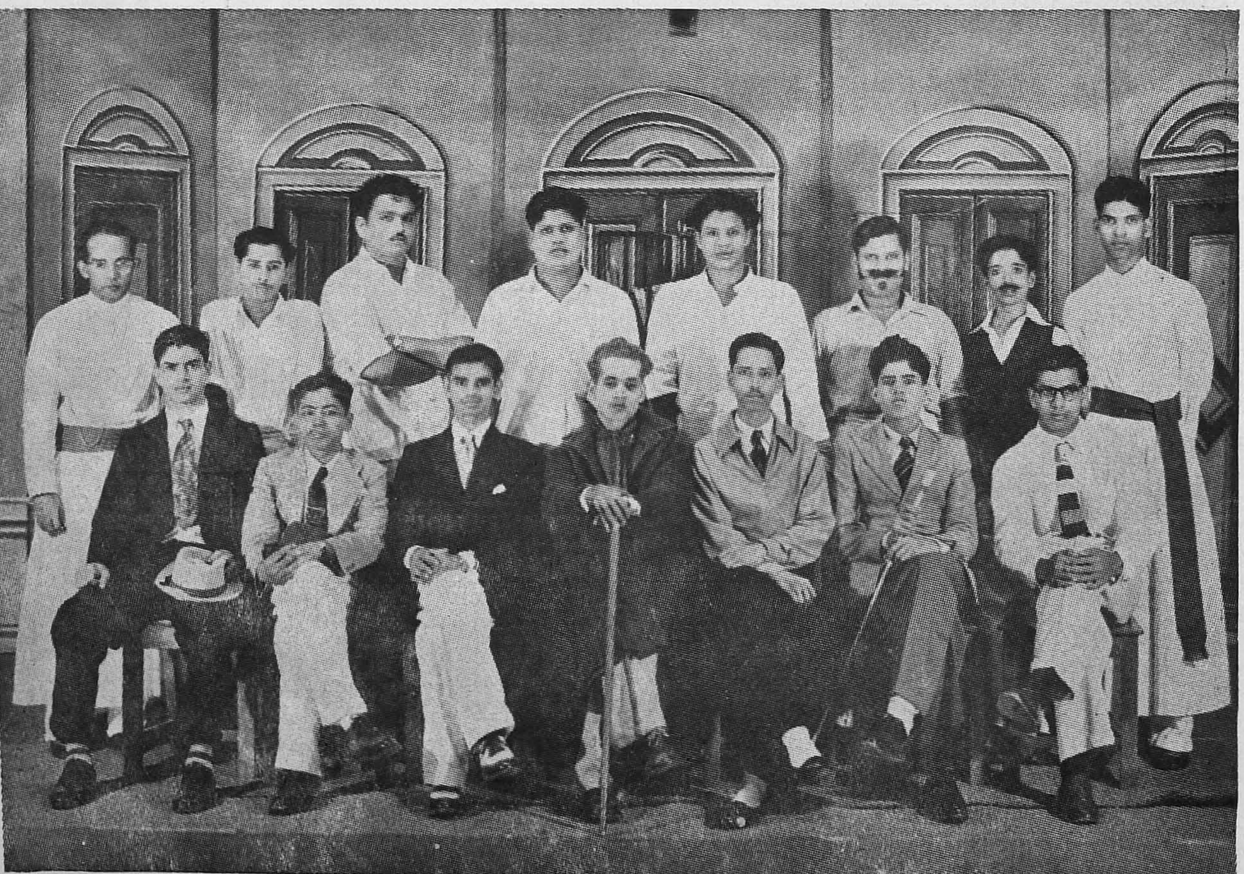
AMIDST THE FLOOD-STRICKEN



"IT PAYS TO ADVERTISE"
COLLEGE DAY PLAY (1955)

$$\eta = \frac{dy}{dp} \cdot \frac{p}{y} = \frac{p_x y'}{y} \quad \text{because } y = y(p)$$

$$= \frac{p}{yp'(y)}$$

Evaluating this at the point defined by $y(p) + py'(p) = 0$ · · · · · (1)

we get $\eta = \frac{-y}{y'} \times \frac{y'}{y} = -1.$

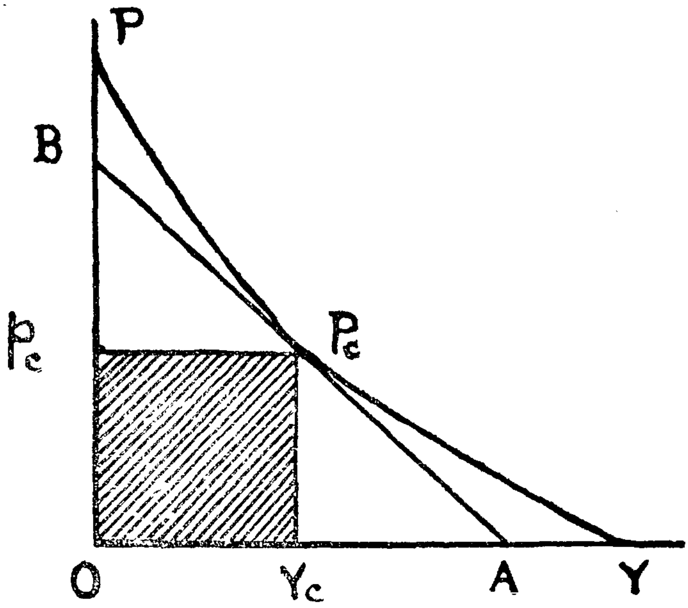


FIG. II. Demand curve showing total revenue and Cournot's point PC

The point P_c at which $\eta = -1$ in the demand curve is called Cournot's point. We note that when the demand curve is $y = Cp^{-1}$ each point is a Cournot's point. Now P_c defines the max. area $OY_cP_cp_c$ The area $R = yp$ is the total revenue of the quantity sold and hence is of importance.

Slope of AB $= \frac{-y_c}{p_c}$.

∴ Equation to the tangent AB $= y - y_c = \frac{-y_c}{p_c}(p - p_c)$ · · · · · (8)

Solving with $p = 0$, $y = 2y_c$.

Solving with $y = 0$, $p = 2p_c$.

i.e. $OA = 2y_c$, $OB = 2p_c$. Hence $Y_cA = y_c$ ∵ $OY_c = y_c$

∴ From the |||r. △s AP_cY_c and ABO, $\frac{AP_c}{AB} = \frac{AY_c}{AO} = ½$.

In other words P_c is the mid-point of AB and hence $AP_c/P_cB = 1$.

i.e. The ratio AP_c/P_cB is numerically equal to η at the point P_c. This leads us to Alfred Marshall's theorem :

"If P is any point on the demand curve and if A and B are the points of intersection of the tangent through P with the demand and price axes respy., then the ratio PA/PB is numerically equal to the elasticity of demand at P."

Proof. Let $P(p_1, y_1)$ be any point on the curve.

Equation to the tangent APB at $P = y - y_1 = (dy/dp)_1(p - p_1)$, where $(dy/dp)_1$ is the value of the derivative at P.

We know, $\eta = \frac{dy}{dp} \cdot \frac{p}{y}$. Hence $\left(\frac{dy}{dp}\right)_1 = \frac{\eta_1 y_1}{p_1}$.

$\therefore$ The tangent is $y - y_1 = \dfrac{\eta_1 y_1}{p_1}(p - p_1) \cdots\cdots\cdots\cdots$ (9)

from (9) and the equation $p=0$, $\quad y = OA = y_1(1-\eta_1)$

from (9) and $y=0$ $\quad p = \dfrac{p_1}{\eta_1}(1-\eta_1)$

$$\therefore \quad PA = [PY_c^2 + AY_c^2]^{1/2} = \{p_1^2 + \eta_1^2 y_1^2\}^{1/2}$$

$$PB = [PP_c^2 + P_cB^2]^{1/2} = \frac{[\eta_1^2 y_1^2 + p_1^2]^{1/2}}{|\eta_1|}$$

$\therefore$ $PA/PB = |\eta_1|$. Hence the result.

Factors Governing η.

We know that $\eta = \dfrac{dy}{dp} \cdot \dfrac{p}{y} \cdots$ i.e. equation (2).

Let us interpret this equation and study its implications. Taking the modulus of (2),

$$|\eta| = \left|\frac{dy}{dp} \cdot \frac{p}{y}\right| = \left|\frac{dy}{dp}\right| \frac{p}{y}$$

since price cannot be $-ve$, nor can the demand. dp is $-ve$ if the price falls by dp and $+ve$ if it rises by dp. Let the price fall by dp. If the demand is elastic, dy will increase. This depends on two factors. The good demanded may have a large range of available substitutes, like coffee. When price lowers, each unit of money in that direction has a command over a larger unit of resources now, and its utility increases. So, to bring it into equality with the other marginal utilities the consumer spends more in that direction where utilities are now higher. So he buys more of coffee and substitutes it for tea and other drinks. Secondly, this depends upon the variety of uses the good has. Taking coal for example, when the price falls low, the prudent purchase more coal and use it not only in industry but also for heating and cooking in the home. On the contrary, when the price rises, less will be bought to be used only in unavoidable cases.

When p is already too great to be within the reach of the poor, the change dp leaves them and the very rich who do not bother about a small change, unruffled. Take the price of cars. When the price is lowered a little, even then the poor cannot buy cars and the very rich are not affected by so small a change in so big a price. Thus the price affects only the middle classes and that too the top strata only. Hence η is influenced by income groups.

The price levels also play an important part. In the case of wireless sets where the price is not too high, demand is very sensitive. But take salt. Price p is already small. y is very great because of the important part played by salt. $\dfrac{p}{dp}$ will be very small since p itself is very small. In $\dfrac{dy}{y}$, y is very great and dy is small because of the lack of close substitutes.

Hence $\eta = \frac{dy}{dp} \cdot \frac{p}{y}$ will be less than unity, or the demand is inelastic.

Economic Dynamics

So far we have considered supply and demand curves and analysed elasticity of demand. It is but fitting at this stage to pause a little and ponder how these curves are obtained. We can quote aptly from the introduction to Lehfeldt's paper: "The Elasticity of Demand for Wheat" published in 1914. He says: ". . . . When after hearing about curves of demand the student asks: How are these curves obtained?, one has to confess that they are not obtained but rest in the limbo of abstractions. From the ordinary data it is obviously very difficult to construct these curves. A static demand curve can be constructed, for say ice-cream, if we determine the demand for ice-cream in n identical communities isolated from one another and from the general market, in each of which the price is different. The resulting per capita demand provides us with ideal data. But in practice prices are obtained as the fluctuating values of a time sequence. There are devices to construct the curves from prices and production like those advanced by E. J. Working." But without undermining the importance of economic statics, one observes that the fact of prices being functions of time makes it inevitable that dynamic considerations must be introduced. This leads us to the dynamic concepts.

Demand

Considering demand first, we can assume that the relationship between demand y and price p can be described by an equation of the form (9-a) $\cdots\cdots$ $y(t) = -ap(t) + b + c\,\frac{dp}{dt}$, where a, b, c are $+ve$ consts. The following cases arise now: (i) If $c = 0$, we obtain the demand curve as a straight line of the type we have already considered. (ii) If $c > 0$, the situation is modified by the assumption that demand increases with price and tends to diminish as price falls. (iii) However if $c < 0$, demand is assumed to increase as price falls and vice versa. Whether either of them is real or not is to be found out by the data themselves.

At this juncture a fourth case presents itself. $p'(t) = \frac{dp}{dt}$ may itself be an independent economic variable and should be so regarded. Then the demand function becomes a plane and we speak of the plane of demand. But as p and p' are of a single parameter t demand is a function of t only and the curve can be represented as a space curve lying on the plane of demand and is a space representation of a time series as in the fig. III.

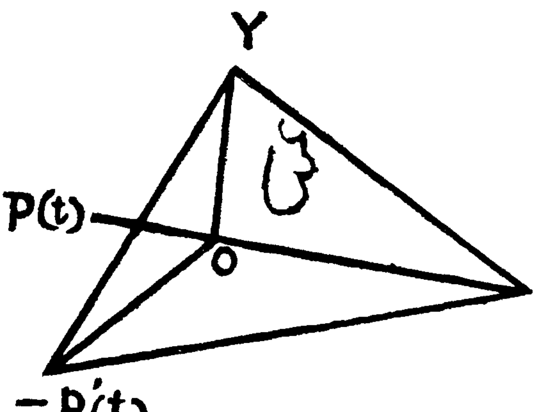


FIG. III

Supply and Price

We can make a similar assumption for supply also. Thus the supply curve is $u(t)=\alpha p(t)-\beta+\gamma\frac{dp}{dt}$, α, β, γ being $+ve$ consts · · · · · · (10)

It then becomes our job to determine price under the new conditions. Assuming supply and demand to be equal, $y(t) = u(t)$ · · · · · · (11)

Hence, from (9-a) & 10, $-ap+b+c\frac{dp}{dt}=\alpha p-\beta+\gamma dp/dt$ which can be put as,

$$\frac{dp}{dt}+mp=k \quad \cdots\cdots \quad (12)$$

where $k=\frac{b+\beta}{\gamma-c}$; $m=\frac{a+\alpha}{\gamma-c}$, $\gamma\neq c$ · · · · · · · · · · · · · · · · · (13)

The solution of (12) is $p(t)=p_0+c\ e^{-mt}$ · · · · · · · · · · · · · (14)

where we write $p_0=\frac{k}{m}=\frac{\beta+b}{\alpha+a}$, c being a const. p_0 is the classical price obtained by the intersection of static curves of supply and demand as in fig. IV. If we assume that when $t=0$, the price is P_0, i.e. $p(0)=P_0$ then from (14) $C=P_0-p_0$. Hence (14) becomes $p(t)=p_0+(P_0-p_0)\ e^{-mt}$ (15)

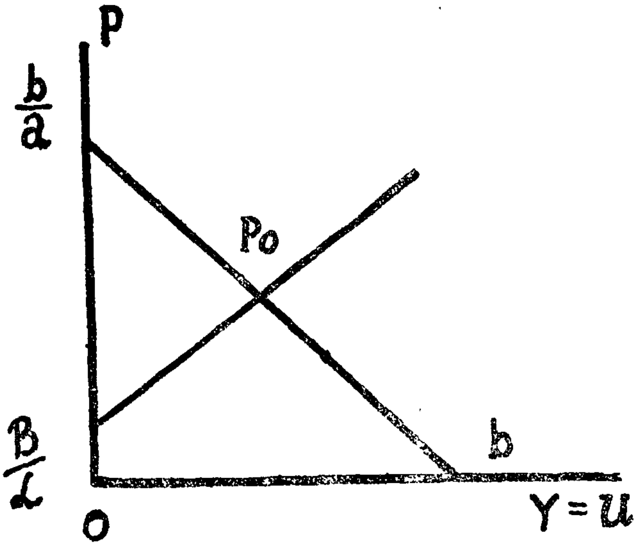


FIG. IV. Linear demand and supply curves

If $m>0$, then as t increases, $p(t)\to p_0$. If $m<0$, $p(t)$ will increase and hence will diverge more and more from equilibrium position. But as generally prices are not observed to behave like this, we take $m>0$, i.e. $r>c$ from (13).

We need not consider the trivial case when $r=c$, for the derivatives of (9-a) & 10 drop out of 12 and the question reduces to static equilibrium.

Conclusion

We have reached the terminus. Our journey into Mathematical Economics ends with the question of prices when both demand and supply are dynamic variables. Proceeding on the same rails we can derive an expression for profits under dynamic prices and arrive at an analysis of maximising profits involving the theory of K. Weierstrass (1815–1897) and A. M. Legendre (1752–1833). But this is not the end of the subject, not even the beginning of the end. It is but the end of the beginning. The whole world of Economics, with its various problems about the vagaries of human wants and satisfactions added to the large strides that the science puts foreward each day, is open to the reader. He can pore over and pick out any aspect that appeals to him and analyse it under a mathematical microscope.

ജനങ്ങളുടെ രാഷ്ട്രീയബോധം

By V. M. Punnolil, IV Hons.

ജനങ്ങളോട് ഉത്തരവാദിത്വമുള്ള, അവരോടു അസന്നിദ്ധമായി കടപ്പെട്ടിരിക്കുന്ന ജനപ്രതിനിധികളുടെ ഭരണസമ്പ്രദായമാണ് ജനാധിപത്യ രാഷ്ട്രങ്ങളിൽ നാം കണ്ടുവരാറുള്ളത്. ജനസമൂഹത്തിന്റെ അവശ്യാവശ്യങ്ങളറിഞ്ഞു് വിവിധതുറകളിലുള്ള അവരുടെ പുരോഗതിയെ ലാക്കാക്കി പ്രവർത്തിക്കുന്നതിന് ഈ ജനപ്രതിനിധികൾ അഥവാ 'മന്ത്രിസഭ' ബാധ്യസ്ഥരാണ്. രാഷ്ട്രത്തിന്റെ മേന്മയ്ക്കും ജനതതിയുടെ നന്മയ്ക്കും അനുയോജ്യമായ ഒരു 'ഭരണക്രമം' സ്ഥാപിതമാകണമെങ്കിൽ ഓരോ പൗരനും അതിനായി പ്രയത്നിയ്ക്കേണ്ടിയിരിക്കുന്നു. ഏതൊരു കക്ഷി അവന്റെ ഉന്നമനത്തിനു തയ്യാറാണോ ആ കക്ഷിയെ പുഷ്ടിപ്പെടുത്തി, ശരിയായ ഒരു ഗവമ്മെൻറു രൂപവൽക്കരിക്കുവാൻ ശ്രദ്ധിയ്ക്കണം. പ്രജായത്ത ഭരണരീതിയിൽ 'കക്ഷിഭരണ'മാണ് ശ്രേയസ്കരം. അതുകൊണ്ടു് പ്രബലവും പ്രായോഗികവുമായ ഒരു കക്ഷിയുടെ സവിശേഷത ജനങ്ങളുടെ മനോഗതിയ്ക്കനുസൃതമായിരിയ്ക്കും. ഉത്തമവും, മാനവക്ഷേമകരവുമായ ഒരു ജനാധിപത്യരീതി കെട്ടിപ്പടുക്കുക എന്ന മഹനീയകൃത്യം നിക്ഷിപ്തമായിരിക്കുന്നതു് 'രാഷ്ട്രീയബോധ'മുള്ള ഒരു ജനതതിയിലത്രെ.

ജനങ്ങളിലുള്ള പ്രബലമായ രാഷ്ട്രീയബോധം നിരങ്കുശമായ ശക്തിവൈശിഷ്ട്യമുള്ളതാണ്. രാഷ്ട്രീയ പ്രബുദ്ധരായ ഒരു ജനതതി ശിരസ്സുയർത്തിയാൽ, അസാധ്യമായിട്ട് അതിനൊന്നുമില്ലതന്നെ. വളരെക്കാലമായി അടിമത്തത്തിന്റെ ഇരുമ്പഴികളാൽ പൂട്ടപ്പെട്ട അമേരിക്കൻകോളനികൾ സ്വയംഭരണത്തിനുവേണ്ടി മുഷ്ടികൾ ചുരുട്ടി ജയഭേരിമുഴക്കി, സ്വതന്ത്രമായി; അവരുടെ കാര്യം നോക്കുവാൻ മറെറാരു ശക്തിയുടെ പ്രേരണ ആവശ്യമില്ലെന്നു രാഷ്ട്രീയബോധമുള്ള അവർ ഗ്രഹിച്ചു; അതു് ജനാധിപത്യപന്ഥാവിലേയ്ക്ക് അവരെ ആനയിക്കുകയുംചെയ്തു.

ജനഹൃദയങ്ങളിലുണ്ടായിരുന്ന ഉൽക്കടമായ രാഷ്ട്രീയബോധത്തിന്റെ തുറന്ന പ്രഖ്യാപനമായിരുന്നു, ആഗോളവ്യാപകമായ ഫ്റഞ്ചുവിപ്ലവം. പ്രസിദ്ധ രാഷ്ട്രീയ ചിന്തകന്മാരുടെ അമൂല്യസംഭാവനകൾ നരസിരാതന്തുക്കളിൽ രാഷ്ട്രീയബോധത്തിന്റെ ബീജങ്ങൾ കുത്തിവെച്ചു. അവരുടെ ക്ഷേമൈശ്വര്യങ്ങൾക്ക് പോരുന്നതായ ഒരു ഭരണസൗധം കെട്ടിപ്പടുക്കുന്നതിൽ അവരുടെ പങ്ക് നിസ്സീമമെന്നു ബോധ്യപ്പെട്ടു. അതോടുകൂടി ജനങ്ങളുടെ രാഷ്ട്രീയബോധം ശീഘ്രഗതിയിൽ വളരുവാൻ തുടങ്ങി.

ആംഗലേയജനതയുടെ രാഷ്ട്രീയബോധം അത്ഭുതാവഹംതന്നെ. അവരുടെ രാഷ്ട്രീയ വീക്ഷണകോണം എപ്പോഴും ജനാധിപത്യത്തിലേയ്ക്കാണ്. സ്വയമേ ആംഗലേയജനതയ്ക്ക് ജനകീയഭരണത്തിനൊരു വൈഭവമു

ണ്ടു്. ഭരണസാരഥ്യം വഹിക്കുക എന്ന മഹനീയ ചുമതല ജനങ്ങളുടെ 'കുത്തക'യാണെന്നു് ലോകത്തിനവർ കാണിച്ചുകൊടുത്തു.

ചരിത്രത്തിൻെറ പേജുകൾ മറിച്ചുനോക്കുന്നപക്ഷം, ജനങ്ങളുടെ രാഷ്ട്രീയബോധത്തിൻെറ ചില രഹസ്യങ്ങൾ നിഷ്പ്രയാസം മനസ്സിലാക്കുവാൻ സാധിക്കും. പുരാതന ഗ്രീസ്സിൽ ജനകീയഭരണത്തിൻെറ 'തനിപ്പകർപ്പു്' ദർശിക്കാവുന്നതാണു്. ആ ഭരണരീതിയിൽ ഏററിയപങ്കും ജനങ്ങളുടെ ചുമലുകളിലായിരുന്നു. ജനങ്ങളുടെ "സുവർണ്ണ കാലഘട്ട"മായിരുന്ന പെരിക്ലിസിൻെറ ഭരണകാലം. ജനാധിപത്യവളർച്ചക്കു് താങ്ങും തണലുമായിരുന്ന അദ്ദേഹം. ഗ്രീസ്സിലെ അനവധി "നവീകരണ"യോദ്ധാക്കൾ ജനങ്ങളിൽ അനസ്യൂതം ഉണ്ടായിരിക്കേണ്ട രാഷ്ട്രീയബോധത്തിൻെറ മാഹാത്മ്യത്തെ ഉച്ചൈസ്തരം വിളിച്ചറിയിക്കുന്നുണ്ടു്.

സ്വേച്ഛാധിപത്യത്തിൻേറയും രാഷ്ട്രങ്ങൾ തമ്മിലുള്ള കലശലായ സംഘർഷത്തിൻേറയും ദുരന്തഫലങ്ങൾ ഒന്നും രണ്ടും ലോകമഹായുദ്ധങ്ങൾ ജനഹൃദയങ്ങളിൽ വിഭ്രാന്തിയുളവാക്കി. ഒരു പുതിയ ഭരണക്രമത്തിൻെറ ആവശ്യം ജനങ്ങൾക്കു നേരിടുകയും, അങ്ങനെ "ജനകീയ"ഭരണസിദ്ധാന്തങ്ങൾക്കു് സമ്പുഷ്ടമായി വളരുവാനുള്ള സാഹചര്യങ്ങൾ സാധകമാകയുംചെയ്തു. ഇന്നു് ഭൂരിപക്ഷം രാജ്യങ്ങളിലെല്ലാം ജനകീയഭരണരീതിയാണു് നിലവിലിരിക്കുന്നതു്. പുരോഗമിച്ചുകൊണ്ടിരിക്കുന്ന ഈ ജനാധിപത്യത്തിനു നിദാനം ജനങ്ങളുടെ ഉൽക്കടമായ 'രാഷ്ട്രീയ'ബോധം ഒന്നുമാത്രമാണു്.

രാഷ്ട്രീയ പ്രബുദ്ധരായ ഒരു ജനതയ്ക്കു മാത്രമേ ഉത്തമമായ ഒരു ജനകീയഭരണരീതി പടുത്തുയർത്തുവാൻ സാധ്യമാകയുള്ളു. ശരിയായിട്ടുള്ള രാഷ്ട്രീയബോധത്തിൻെറ വിജ്ഞാനപ്പരപ്പിൽ വേണം അവരുടെ 'പൗരാവകാശ'മായ "വോട്ടു" വിനിയോഗിക്കുവാൻ. രാഷ്ട്രീയബോധത്തിൽ അടിയുറച്ച ആംഗലേയജനത നൂററാണ്ടുകളായി ജനാധിപത്യഭരണത്തിൽ വിശ്വസിക്കുകയും, അതിനുവേണ്ടി ധീരധീരം പോരാടുകയുംചെയ്തു. അവരുടെ രാഷ്ട്രീയപ്രബുദ്ധത ഒരു രാജാവിനെ നിഷ്ഠുരം വധിക്കുന്നതിനും, മറെറാരു രാജാവിനെ നിർദ്ദയം നാടുകടത്തുന്നതിനും പ്രേരകമായി. അവരുടെ ഔന്നത്യത്തിൻെറ ഏകകാരണവും 'രാഷ്ട്രീയബോധ'മാണെന്നു് നിസ്സംശയം പറയാം.

രാഷ്ട്രത്തിൻെറ പുരോഗതിക്കായി ഒരുവൻ പ്രവർത്തിക്കുന്നില്ലെങ്കിൽ "നിരുപദ്രവി"യായിട്ടല്ല അവൻ എണ്ണപ്പെടുന്നതു്, "നിരുപയോഗി" ആയിട്ടാണു്. ദേശീയചിന്തയില്ലാതെ അലയുന്നവർ രാഷ്ട്രത്തിനുതന്നെ തീരാക്കളങ്കമാണു്.

ജനായത്തഭരണസമ്പ്രദായത്തിൻെറ ജീവനാഡിയായ "തെരഞ്ഞെടുപ്പി"ലാണു് ഒരു ജനതതിയുടെ രാഷ്ട്രീയ പ്രബുദ്ധത പ്രകടമാകുന്നതു്. ഒരുവൻെറ "വോട്ടു" വിനിയോഗം, രാഷ്ട്രത്തിൻെറതന്നെ ഭാവിയെ സ്പർശിക്കുന്നതാണു്. ഈ പൗരാവകാശവിനിയോഗം പലപ്പോഴും വികാരങ്ങളുടേയും പ്രേരണകളുടേയും തുലാമാലകളിൽ ദുരുപയോഗപ്പെടുന്നതാണു് കണ്ടുവരു

ന്നതു്. എന്നാൽ രാഷ്ട്രീയബോധമുള്ള ഒരു പൗരൻ വികാരാവേശിതനാകാതെ, വിവേചനാപൂർവ്വം അവൻെറ "വോട്ടു" വിനിയോഗിക്കുന്നു; തദ്വാരാ 'ഉത്തരവാദബോധ'മുള്ളതും ജനങ്ങളുടെ ശ്രേയസ്സിനുവേണ്ടി പ്രവർത്തിക്കുവാൻ ഒരുക്കമുള്ളതുമായ ഒരു മന്ത്രിസഭ രൂപവൽക്കരിക്കപ്പെടുന്നു. ഈ 'മന്ത്രിസഭ' ജനസമ്മതമുള്ളിടത്തോളംകാലം ഭരിക്കുകയുംചെയ്യുന്നു.

ജനകീയഭരണത്തിനുവേണ്ടി ജീവത്യാഗം ചെയ്ത രാഷ്ട്രീയചിന്തകന്മാരുടേയും, പ്രവർത്തകന്മാരുടേയും അഭിപ്രായവിശകലനങ്ങളിൽനിന്നും സുപ്രധാനമായ ഈ 'രാഷ്ട്രീയബോധ'ത്തിൻെറ ഗൗരവം നമുക്കു മനസ്സിലാക്കാം. മനുഷ്യാവകാശങ്ങളെ വിലമതിക്കുന്നതും, വ്യക്തിത്വത്തെ മാനിക്കുന്നതും, രാഷ്ട്രത്തിൻെറ നാനാവിധത്തിലുള്ള പുരോഗമനത്തിനു വഴിതെളിക്കുന്നതുമായ ഒരു ജനായത്തഭരണം ഉണ്ടാകണമെങ്കിൽ രാഷ്ട്രീയപ്രബുദ്ധരും, കർമ്മനിരതരും, വിവേചനാപടുക്കളുമായ ഒരു ജനത ആവശ്യമത്രെ. വൈദേശികമേധാവിത്വത്തിൽനിന്നും വിമുക്തമായ ഭാരതത്തിൻെറ ജനായത്തഭരണ പുരോഗമനനാളത്തിനു് "എണ്ണത്തിരി" പകരുന്നതു് ഭാരതജനതയുടെ രാഷ്ട്രീയബോധമാണു്.

"സ്മരണയുടെ വഞ്ചിയിൽ"

By Joseph Jacob, V Hons.

മധുരിമയൂറുന്ന വസന്തരാവുകൾ പലതും പുഞ്ചിരിതൂകിക്കൊണ്ടു പറന്നുപോയി...........കണ്ണുനീർതൂകുന്ന കാലവർഷവും...........പ്രകൃതി വരുത്തിക്കൂട്ടുന്ന മാററങ്ങൾ! വാടിത്തുടങ്ങിയ അഭിലാഷങ്ങളുമായി നെടുവീർപ്പിട്ടിരുന്ന മാനവഹൃദയങ്ങൾക്കു കുളിർകോരിയണിഞ്ഞുകൊണ്ടു് പൊന്നിൻ ചിങ്ങമാസത്തിലെ ബാലരവി തങ്കരശ്മികൾ വീശി ഉദിച്ചുയന്നു.

വളരെ നാളുകൾക്കുശേഷം വീണ്ടും എൻെറ ജന്മദേശം കാണുകയാണു്. പ്രതീക്ഷകളുടെ പുഷ്പതാലവുമേന്തി എത്ര കണ്ണുകൾ എനിക്കുവേണ്ടി കാത്തിരിക്കുന്നുണ്ടാവാം. അതെ, എൻെറ ഓമന അനുജത്തി ശോഭയും, അനുജൻ പ്രകാശും, അച്ഛനും അമ്മയും. എന്നാൽ തിളങ്ങുന്ന ആ രണ്ടു കണ്ണുകൾ അവയെന്നെ പ്രതീക്ഷിക്കുകയല്ല. തുളച്ചുകയറുന്ന ആ നോട്ടം ഇനിയും ഒരിക്കലും കാണുവാൻ സാധിക്കുകയില്ല. ആ മൃദുമന്ദഹാസം എൻെറ ഹൃത്തിൽ കുളിർകോരിയിടുകയുമില്ല. ഒരു നീണ്ട കുഴൽവിളി. ട്രെയിൻ സ്റ്റേഷനിലെത്തി. ചുററുപാടിലും എൻെറ ശൂന്യനയനങ്ങൾ ഞാൻ പായിച്ചു. പക്ഷേ ഓടിവന്നു് ആഹ്ലാദപുരസ്സരം എന്നെ എതിരേല്ക്കുന്ന എൻെറ ആത്മസ്നേഹിതൻ ഇന്നെവിടെ?

ഭവനത്തിൻെറ പടിക്കൽ എത്തിയപ്പോൾതന്നെ എൻെറ കൊച്ചനുജൻ പ്രകാശ് "ചേട്ടൻ വന്നമ്മേ" എന്നൽഘോഷിച്ചുകൊണ്ട് ഓടിവന്നു. ആ കുസൃതിക്കുരുന്ന് എൻെറ തോളിൽ തൂങ്ങി. എൻെറ കണ്ണുകൾ നിറഞ്ഞൊഴുകി. ഹൃദയത്തിനു വല്ലാത്തൊരസ്വസ്ഥത. നീറുന്ന നിമിഷങ്ങൾ. അത്ഭുതം വിടരുന്ന കണ്ണുകളോടെ അച്ഛൻ പറഞ്ഞു "കുഞ്ഞേ സുരേഷ്! നിനക്കെന്താണ് വല്ല സുഖക്കേടുമാണോ? "ഒന്നുമില്ലച്ഛ" ഞാൻ പറഞ്ഞൊപ്പിച്ചു.

സ്മരണകൾ...........ഓർമ്മയുടെ നാളങ്ങൾ ജ്വലിക്കുകയാണ്. ഇങ്ങിനിവരാതെവണ്ണം മാഞ്ഞുമറഞ്ഞുപോയ ആ ബാല്യകാലം, കൊഴിഞ്ഞുപോയ ആ വസന്തങ്ങൾ, അവയെത്രമാത്രം എൻെറ ജീവിതത്തിൽ മാധുര്യം പകർന്നിരുന്നു!!! ഇന്നവയുടെ സ്മരണകൾ എൻെറ ഹൃദയത്തിൽ വേദനയും വിഷാദവും പകരുകയാണ്........ഹാ! വേണു............എൻെറ ഹൃദയവീണമീട്ടാൻ തുടങ്ങുകയായി. പതിനഞ്ചുകൊല്ലങ്ങൾക്കപ്പുറം ആരംഭിച്ച ആ സുഹൃൽബന്ധം എതിർപ്പുകളെത്തട്ടിത്തകർത്തുകൊണ്ട് മുന്നേറി. സൌഹൃദത്തിൻെറ സമ്മോഹനഗീതികൾ ഞങ്ങളെത്തമ്മിൽ അടുപ്പിച്ചു. അധികം ആരോടും സംസാരിക്കാത്ത ആ നാണം കുണുങ്ങിച്ചെറുക്കൻ..."വേണുവിൻെറ ജന്മം പെണ്ണുങ്ങളുടേതാണ്" ഞാൻ കളിയാക്കും. "ഈ നാണംകുണുങ്ങിച്ചെറുക്കൻ എങ്ങനെ ലോകത്തിൽ കഴിഞ്ഞുകൂട്ടും"—അവൻെറയമ്മ പറയാറുണ്ടായിരുന്നു. എൻെറ വീടിൻെറ സമീപമുള്ള മാന്തോപ്പും ആററിൻതീരത്തുള്ള മണ്ഡപവും ആയിരുന്നു ഞങ്ങളുടെ പ്രധാന വിഹാരസ്ഥലങ്ങൾ. വേണു ഒരു നല്ല പാട്ടുകാരനായിരുന്നു. ആ ഓടക്കുഴൽ അവൻെറ ജീവനായിരുന്നു. മാമ്പഴം പൊഴിയുന്ന കാലങ്ങളിൽ വേണുവിനെയും സുരേഷിനെയും കാണണമെങ്കിൽ മാവിൻചുവട്ടുതോറുമന്വേഷിക്കണം.

വർഷങ്ങൾ ഇഴഞ്ഞുനീങ്ങി. ഉന്നതവിദ്യാഭ്യാസാർത്ഥം ഞാൻ മദിരാശിക്കും വേണു ആലുവായ്ക്കും തിരിച്ചു. അവധിക്കു നാട്ടിൽ വരുമ്പോൾ ഞങ്ങൾ തമ്മിൽ കാണും. ആനന്ദമായി കുറെ ദിവസങ്ങൾ കഴിക്കും. ലോകത്തിനെന്തൊക്കെ പരിവർത്തനങ്ങൾ സംഭവിച്ചു. വേണു ആളു് വളരെ മാറിയിട്ടുണ്ട്. സ്വതവേ ശോഷിച്ചിരുന്ന അവൻെറ ദേഹം ഒന്നുകൂടി വിളറി. പഠിത്തക്കൂടുതൽകൊണ്ടായിരിക്കും, ഞാൻ സമാധാനിച്ചു.

ബി. എസ്. സി. പരീക്ഷയെഴുതിയിട്ട് ഞാൻ വീട്ടിലേക്കു മടങ്ങി. വേണു ഇനിയും എത്തിയിട്ടില്ല. കൃത്യദിവസം ഞാൻ സ്റ്റേഷനിൽ എത്തി. ട്രെയിൻ ഒരു ചൂളംവിളിയോടുകൂടി വന്നുനിന്നു. "ഹലോ സുരേഷ്" രണ്ടു ശുഷ്ക്കങ്ങളായ കരങ്ങൾ എന്നെ സ്പർശിച്ചു. ഞാൻ ഞെട്ടിപ്പോയി. രക്തം തുടിച്ചിരുന്ന ആ കവിൾത്തടങ്ങൾ ഒട്ടി വിളറിയിരുന്നു. സദാ മന്ദഹാസം പൊഴിച്ചിരുന്ന ആ ചുണ്ടുകൾ കരിവാളിച്ചിരുന്നു. ഇടവിടാതെയുള്ള ചുമയും. "വേണു! നിനക്കെന്തുപററി."

"ഓ പരീക്ഷയല്ലായിരുന്നോ തെല്ലൊന്നു മുഷിഞ്ഞുപഠിച്ചു, അതാ, ക്ഷീണിച്ചിരിക്കുന്നതു്."

അന്നു രാത്രിയിൽ വെള്ളിനിലാവിൽ, ആററിൻെറ ഇരുകരകളിലുമുള്ള ചെറുകുടിലുകൾ ആ ദിവ്യമായ മുരളീഗാനത്തിൽ നിമഗ്നമായി സുഖസുഷുപ്തി

യിൽ ലയിച്ചു. അതിൻെറ മനോഹാരിതയിൽ പ്രകൃതി നിശ്ചലമായി. മന്ദാനിലനോടൊപ്പം ആററിലെ കൊച്ചോളങ്ങളും അവയെ വഹിച്ചുകൊണ്ടു് വിദൂരതയിലേക്ക നീങ്ങി.

വേണു തീരെ കിടപ്പാണു്. കനത്ത ചുമ. ദേഹം ആസകലം വേദന. ഇടവിട്ടുള്ള പനി. ഡാക്ടർ വന്നു വേണ്ട പരിശോധനകൾ എല്ലാം നടത്തി. ക്ഷയം! അവൻെറ അഛൻെറ സുഖക്കേടുതന്നെ. പിന്നെയും ആ നീണ്ട ചുമ. രാവും പകലും അവൻെറയടുക്കൽതന്നെ ഞാൻ കഴിച്ചുകൂട്ടി. ആഹാരം കഴിക്കാൻതന്നെ ഞാൻ മറന്നിരുന്നു. എൻെറ ഹൃദയം വിങ്ങിപ്പൊട്ടുകയാണു്. എൻെറ വേണു...............

അക്കൻ പലപ്രാവശ്യം ഉദിച്ചസ്തമിച്ചു. നിലാവു മങ്ങി. ചന്ദ്രൻ വെറുമൊരു വെള്ളിരേഖയായി മാറിയിരിക്കുന്നു. എന്തോ ദുസ്വപ്നം കണ്ടു ഞാൻ ഞെട്ടിയുണർന്നു. അശുഭസൂചകങ്ങളായ തെരുവു നായ്ക്കളുടെ മോങ്ങലുകൾ. ഞാൻ കിടക്കയുടെ സമീപത്തേക്ക നീങ്ങി. രോഗിയുടെ ദൃഷ്ടികൾ തുറന്നു. അവൻെറ ബലഹീനഹൃദയത്തിൽ വികാരങ്ങൾ കിടന്നു വീർപ്പുമുട്ടുകയാണു്. കണ്ണീർ ചിറപൊട്ടിയൊഴുകി. അല്പം മരുന്നു ഞാൻ പകൻകൊടുത്തു. "പ്രിയപ്പെട്ട സുരേഷ്!" അവൻ പെട്ടെന്നു സംസാരിച്ചുതുടങ്ങി. "ജീവിതത്തിൻെറ സുവണ്ണചഷകത്തിൽനിന്നും മധു പകന്നാസ്വദിക്കുമ്പോൾ, ബാല്യകാലത്തെ സുമോഹനങ്ങളായ സ്മരണകളുടെ വഴിവക്കിലേക്കെത്തിനോക്കുമ്പോൾ, ആ പുൽത്തകിടിയിലിരുന്നു് ആനന്ദഗാനം പൊഴിച്ച എന്നെ സ്മരിക്കുമോ, സുരേഷ്. ഈ വിടരാത്ത സ്വപ്നം എന്നേക്കുമായി വിസ്മരിക്കപ്പെടുമോ? കാലത്തിൻെറ താൾ മറിക്കുമ്പോൾ എന്നെ മറക്കുമോ, മറക്കുമോ സുരേഷ്". എൻെറ സിരകൾ ഒന്നു പിടഞ്ഞു. കരൾ നൊന്തുകലങ്ങി. എൻെറ വിറക്കുന്ന അധരങ്ങൾ അവൻെറ വിളറിയ കവിൾത്തടങ്ങളിൽ സ്നേഹത്തിൻെറ മായാത്ത മുദ്രകൾ അപ്പിച്ചു. സംതൃപ്തിയുടെ വീചികൾ അവൻെറ നയനങ്ങളിൽ അലയടിച്ചു. "റീ....സ....ൽട്ട്" അവൻ വിക്കിവിക്കിപറഞ്ഞു. ഓ ഞാൻ മറന്നുപോയി. അന്നാണു് റിസൽട്ടറിയുന്നതു്.

ഇനിയും പ്രഭാതമായിട്ടില്ല. ഞാൻ ബസ്റ്റാൻഡിലേക്ക തിരിച്ചു. "ബന്ധു, ബന്ധു, ദേശബന്ധു "ഒരു കൊച്ചൻ വിളിച്ചുപറഞ്ഞു. ആത്തിയോടെ ഞാൻ പേപ്പറിലേക്ക കണ്ണോടിച്ചു. വേണു ഫസ്റ്റ്ക്ലാസ്സിൽ വിജയിച്ചിരിക്കുന്നു. സൈക്കിളിൽ ഞാൻ വീട്ടിലേക്ക പാഞ്ഞു. ചില അമത്തിയ രോദനങ്ങൾ ആ ഭവനത്തിൽനിന്നും പുറപ്പെട്ടുകൊണ്ടിരുന്നു. വേണുവിൻെറ അമ്മാവൻ വരാന്തയിൽ കുനിഞ്ഞുകൂടി ഇരിപ്പുണ്ടായിരുന്നു. "അമ്മാവാ! എൻെറ വേണുവിനു ഫസ്റ്റ ക്ലാസ്സ്" "കുഞ്ഞേ! നീ താമസിച്ചുപോയി" ഗൽഗദംമൂലം അദ്ദേഹത്തിൽനിന്നും വേറൊന്നും പുറപ്പെട്ടില്ല. വേണുവിൻെറ പരിശുദ്ധദേഹി അനന്തതയിലേക്ക പറന്നുപോയിക്കഴിഞ്ഞിരുന്നു. എൻെറ തലചുററി........

ആ പുലർകാലത്തിലെ പറവകൾ പാടിയതു്, വിടരുന്നതിനുമുമ്പുകൊഴിഞ്ഞുപോയ ആ ദിവ്യാത്മാവിനെക്കുറിച്ചുള്ള ശോകഗാനമായിരുന്നു. എന്തോ ഒരസാധാരണസംഭവമുണ്ടായി. എന്തോ ഒന്നു് ലോകത്തിനു നഷ്ടപ്പെട്ടു.

അതറിയുവാനല്ല ജിജ്ഞാസ, എന്നാൽ തെല്ലൊരാശങ്ക, ഇവമൂലമായിരിക്കാം കിഴക്കൻമലകളുടെ വിള്ളലിൽക്കൂടി എത്തിനോക്കിയ കതിരവൻെറ ആനന്ദം വിളറിപ്പോയതു്.

വർഷങ്ങൾ പലതുകഴിഞ്ഞു. ഞാനിന്നു ബോംബെയിലെ ഒരുയന്ന ഉദ്യോഗസ്ഥനാണു്. കാലത്തിൻെറ പഴക്കത്തിൽ ഇടിഞ്ഞുപൊളിഞ്ഞുപോയ ആ മണ്ഡപത്തിൽ ഞാനിരിക്കുകയാണു്. നിലാവു് എങ്ങും പരന്നിരുന്നു. പക്ഷേ അതു നീറുന്ന നിലാവായിരുന്നു. അതിനേക്കാൾ അർദ്ധനിശീഥിനിയുടെ നിതാന്തമൂകത ഞാൻ ഇഷ്ടപ്പെട്ടിരുന്നു. ഇരുളിൻെറ മറവിൽനിന്നും ഒരു സ്വപ്നീയഗാനനിർഝരി ഒഴുകിവന്നു.

"ഒരുപക്ഷെ കാലത്തിൻകല്പനയാൽ
ഇരുവർ നാം അന്യോന്യം വേർപിരിഞ്ഞാൽ
ശിഥിലമായ് തീരൊല്ലീ സ്നേഹബന്ധം
നാം ഹൃദയാൽ നമിക്കുമീ ആത്മബന്ധം"

വേണു എത്രയോതവണ ഈ പല്ലവി പാടിയിട്ടുണ്ടു്. മറവിയിൽനിന്നും പൊന്തിയ ആ പദ്യശകലം ആ കൊച്ചുനക്ഷത്രത്തെ പുണരാൻ ഉയരുകയായി.

"ഹാ!........ ചേർന്നിടാം നമുക്കു നിത്യമായ്."

കുമാരനാശാൻെറ കവിത

By Jacob Anthikad, II U. C.

ആശാൻെറ കവിത മലയാള പദ്യസാഹിത്യത്തിൽ വലിയൊരു കോളിളക്കംതന്നെ ഉണ്ടാക്കി; അതിലെ ഒരു നവീനഘട്ടത്തിൻെറ പ്രഭാതവേളയെ കുറിച്ചു. കുറെ വൈകിയിട്ടെങ്കിലും, ഭയങ്കരമായ പ്രത്യാഘാതങ്ങൾക്കുശേഷം ആശാൻെറ കവിതകൾക്കു് അവയർഹിക്കുന്ന വില കിട്ടി. "നളിനി"യോടോ, "വീണപൂവി"നോടോ കിടപിടിക്കുവാൻ കഴിവുള്ള കവിതകൾ മലയാളത്തിൽ ഉണ്ടോ എന്നുതന്നെ സംശയിക്കുവാൻ തുടങ്ങി. മഹാകാവ്യം എഴുതാതെതന്നെ ആശാൻ മഹാകവിയുമായി. ആശാൻകവിതകളുടെ ഈ മഹനീയത എന്താണു്?

ആശാൻ അലങ്കാരപ്രയോഗത്തിൽ ബഹുചതുരനാണു്, പക്ഷെ അലങ്കാരങ്ങൾക്കുവേണ്ടി അവ പ്രയോഗിച്ചില്ലെന്നുമാത്രം. വർണ്ണ്യവസ്തുവിനെ കൂടുതൽ വ്യക്തമാക്കുവാനായി അദ്ദേഹം അലങ്കാരങ്ങൾ ഉപയോഗിച്ചു. അതുപോലെതന്നെ ഉപമാനവസ്തുക്കൾക്കുവേണ്ടി നമ്മുടെ കവി ദേവലോകത്തിലൊന്നും പോയതുമില്ല. പ്രതൃത പരിത:സ്ഥിതികളിൽനിന്നുതന്നെ അവ സ്വീകരിച്ചു. ഹിമവൽപാർശ്വങ്ങളിൽ യോഗാഭ്യാസം ചെയ്യുന്ന ദിവാകരനെ "ഉൽഫുല്ലബാലരവി"യോടു് ഉപമിച്ചിരിക്കുന്നതു് ഇക്കാര്യം വ്യക്തമാക്കുന്നുണ്ടു്.

വർണ്ണവ്യവസ്ഥവിനെ അലങ്കാരങ്ങളുടെ സഹായത്താൽ വളരെയധികം വ്യക്തമാക്കാമെന്ന് കവി കാണിച്ചുതന്നിട്ടുണ്ട്. മാതാപിതാക്കന്മാരാൽ ആശ്വസിപ്പിക്കപ്പെടാൻ കഴിയാത്ത വിരഹദുഃഖം അനുഭവിക്കുന്ന നളിനിയെ വിവരിക്കുന്നതു് "കഷ്ടകൻ കിണറിനാൽ നനക്കിലും

വർഷമററവരിനെല്ലാ"യിട്ടാണ്.

അതുപോലെത്തന്നെ വാസവദത്തയുടെ കൃഷ്ണമണി ചലിക്കുന്നതു് "സ്ഫടികകുപ്പിയിലിട്ട പരൽമീൻ"പോലെയാണത്രെ.

അലങ്കാരങ്ങൾ വ്യംഗ്യാർത്ഥപ്രധാനങ്ങളുമാണ്. താഴ്‌വരയിലേക്ക്, മലമുകളിൽനിന്ന് നോക്കുന്ന ദിവാകരനെ "ഖഗയുവാവി"നോടു് ഉപമിച്ചിരിക്കകൊണ്ടു് യോഗിയുടെ ഇഷ്ടവസ്തു (നളിനി) അടിവാരത്തിലുണ്ടെന്ന് സൂചിപ്പിക്കുന്നു. അതുപോലെത്തന്നെ,

"അപ്പൊഴാശ്രു തനിയേ വിടുന്നവൾ-
കല്ലലങ്ങളൊടിഞ്ഞകണ്ണുകൾ;
ഉൾപ്രമോദമഥ വേലിയേററമാ-
ന്നൽഭ്രുതാംഗിയുടെ ചന്ദ്രനോയതി!"

എന്ന് പറഞ്ഞിരിക്കുന്നതും ഏററവും അർത്ഥവത്താണ്.

തൻെറ പാത്രങ്ങളുടെ രൂപഭാവങ്ങൾ വർണ്ണിക്കുന്നതിൽ ആശാനോളം ശ്രദ്ധ ചെലുത്തിയിട്ടുള്ള മററൊരു കവി മലയാളത്തിലുണ്ടായിട്ടുണ്ടോ എന്നു സംശയമാണ്. "കരുണ"യിലൊഴിച്ച് മറെറാരിടത്തും കവി തൻെറ കഥാപാത്രങ്ങളെ നഖശിഖാന്തം വർണ്ണിക്കുന്നില്ല. അദ്ദേഹത്തിൻെറ അന്തസ്സും ആഭിജാത്യവും അതു അനുവദിച്ചിരുന്നില്ലായിരിക്കാം. "കരുണ"യിലെ വേശ്യയായ നായികയുടെ അവയവവർണ്ണന അനിവാര്യമായിരുന്നതാനും. ഇങ്ങനെയെല്ലാമാണെങ്കിലും, അവിടവിടെയുള്ള ചില സൂചനകൾകൊണ്ടു് നായികാനായകന്മാരെ ഏററവും ഭംഗിയായി കവി വർണ്ണിക്കുന്നുമുണ്ട്. "ബന്ധുരാംഗരുചി"യായ നളിനിയെ "ഉഷസ്സന്ധ്യ"യോടും, "ഇന്ദുവിൻെറ ഏകരശ്മി"യോടും ഉപമിച്ചിരിക്കകൊണ്ടു് അവളുടെ ശരീരസൌന്ദര്യം ശരിക്കു പ്രത്യക്ഷപ്പെടുന്നുണ്ട്. പിന്നെയും കവി തുടരുന്നു:

"ധീരനായയതിനോക്കി തന്പിതൻ
ഭൂരിബാഷ്പപരിപാടലംമുഖം.
പൂരിതാദരയൊടുഷസ്സിൽ മഞ്ഞുതൻ
ധാരയാന്ന പനിനീർസുമോപമം."

ഇതു് ഒരു തൂലികാചിത്രമല്ലെങ്കിൽ പിന്നെ എന്താണ്?

"വിഭവ, മതുകണക്കെ വിദ്യ, യീ-
സ്സുഭഗത, ശോഭനയൌവനാഗമം,
ശുഭഗുണയിവയിൽച്ചരിക്കയാ-
യഭിമതവാപിയിൽ മുഗ്ദ്ധഹംസിപോൽ"

ഇതിലും നന്നായി ലീലയെ ഏതൊരു കവിക്കാണ് വർണ്ണിക്കാൻ കഴിയുക?

തൻെറ പാത്രങ്ങളുടെ ഭാവവർണ്ണനയിൽ കവിയുടെ സാമർത്ഥ്യത്തിന് യോഗിയായ ദിവാകരൻെറ സ്വഭാവം വർണ്ണിക്കുന്ന പദ്യംമാത്രംമതി സാക്ഷ്യം വഹിക്കുവാൻ.

"പാരിലില്ലഭയമെന്നു, മേറെയു
ണ്ടാരിലും കരുണയെന്നുമേതിനും
പോരുമെന്നുമരുളിപ്രസന്നമായ്
ധീരമായമുഖകാന്തിയാലവൻ"

ആശാൻ സർവ്വോപരി ഒരു സ്നേഹഗായകനാണ്. കവിതകളിൽ പലതിലും അനുരാഗത്തിന് വലിയ പ്രസക്തിയുണ്ട്. പക്ഷെ അത് "ശൃംഗാരക്കറ പോയ", "പരിശുദ്ധമായ അനുരാഗ"മാണെന്നുമാത്രം. സ്നേഹത്തോട് കവിയുടെ ബന്ധം "നളിനി"യുടെ ജീവൻതന്നെയായ ആ ശ്ലോകത്തിൽ വ്യക്തമായികാണാം.

"സ്നേഹമാമഖിലസാരമൂഴിയിൽ
സ്നേഹസാരമിഹസത്യമേകമാം
മോഹനം ഭുവനസംഗമിങ്ങതിൻ-
സ്നേഹമൂലമമലേ! വെടിഞ്ഞുഞാൻ."

വെറും ഒരു വേശ്യയുടെ പ്രേമത്തെക്കുറിച്ചും,

"കതിരവനുടെ ചെറുകിരണവും കാമ്യമല്ലി-
യതിമാത്രമിരുൾതിങ്ങുമന്ധകൂപത്തിൽ"

എന്നാണ് ആ ആദർശപ്രേമി ചോദിക്കുന്നത്!

ആശാൻ "ആശയഗംഭീര"നമാണ്. ജീവിതത്തിൽ വിചാരത്തിനും ഒരു വലിയ സ്ഥാനമുണ്ടല്ലോ. അതുകൊണ്ട്, കവിത "ജീവിതത്തിൻെറ വിമർശന"മാകണമെങ്കിൽ അതിൽ വികാരത്തിനൊന്നപോലെ വിചാരത്തിനും വലിയ സ്ഥാനമുണ്ടായിരിക്കണം. ഉത്തമകാവ്യങ്ങളായ ആശാൻെറ കൃതികളിൽ സന്ദർഭത്തിനനുസരിച്ച് വിചാരത്തിന് വലിയ സ്ഥാനം കല്പിച്ചിട്ടുണ്ടെങ്കിൽ അത്ഭുതപ്പെടുവാനില്ല. അദ്ദേഹത്തിൻെറ തത്വചിന്ത കവിതയേയും, കവിത തത്വചിന്തയേയും അന്യോന്യം മോടിപിടിപ്പിക്കുന്നു.

കുമാരനാശാൻെറ കൃതികളിൽ "അനാവശ്യമായ പ്രാസനിബന്ധന," "ദുരാന്വയം" മുതലായ ചില ചില്ലറ ന്യൂനതകളുണ്ടെങ്കിൽ, അവ സൂര്യബിംബത്തിലുണ്ടെന്നു പറയപ്പെടുന്ന കറുത്ത ബിന്ദുക്കൾപോലെയാണ്. അവക്ക് പല കുറവുകളും ഉണ്ടായിരിക്കാം. പക്ഷേ, "അസൂയാലുക്കളായ ക്ഷുദ്രനിരൂപകന്മാർക്ക്" എത്താൻ കഴിയാത്ത ഒരു ഉയർന്നതലത്തിൽ ആശാൻകവിതകൾ എത്തിച്ചേർന്നുകഴിഞ്ഞിരിക്കുന്നു.

"പരീക്ഷയിൽ തോററു!"

By T. K. Anthony Vylathur, II U. C.

ജോണിക്ക് വയസ്സായ ഒരു അമ്മ മാത്രമേയുള്ളു. ഒരു കൊച്ചു താലി ച്ചെയിനാണ് അവരുടെ ആകെയുള്ള സ്വത്ത്. കാലത്തിൻെറ കല്ലുകളാൽ തേയപ്പെട്ട താലിച്ചെയിൻ! അതിനെ അണിയിച്ച കൈകൾ ഇന്ന് മൺതരികളായി മാറിയിരിക്കയാണ്.

"യ്യൊരുത്തിലായിട്ട് എനിക്ക് മരിക്കാടാ മോനേ?" ജോണിയുടെ മാതാവിനുള്ള ഒരപേക്ഷയാണിത്—തൻെറ ഓമനമകന് സമർപ്പിക്കാനുള്ള അമ്മയുടെ ഏകോപഹാരം. അങ്ങനെ ആ രണ്ടു ജീവിതങ്ങൾ പഴകി ജീർണ്ണിച്ചൊരു കുടിലിൽ കാലംകഴിക്കുകയാണ്.

മിലിട്ടറിയിൽനിന്നും വരുന്ന ചുരുങ്ങിയ പെൻഷ്യൻെറ സഹായത്താൽ ജോണി ഹൈസ്കൂൾവരെയെത്തി. കാലത്തിൻെറ വേഗതക്കൊപ്പം അവനും ഓരോ ക്ലാസ്സുകളെ പിന്നിട്ട് മുന്നോട്ടു കയറുകയാണ്. അങ്ങനെ "സ്കോളർഷിപ്പോ"ടെ പത്താം ക്ലാസ്സും കടന്നു. അവൻെറ ഭാവിയെക്കുറിച്ച് ഗുരുനാഥന്മാർപോലും വളരെയധികം ആലോചിച്ചു. ഒടുവിൽ അവർ തള്ളയെ സമാധാനപ്പെടുത്തി, ജോണിയെ കോളെജിൽ അയച്ചു.

രണ്ടു ഷർട്ടുമായി ജോണി കോളെജിൻെറ പടികടന്നു. "യ്യൊരുത്തിലായിട്ട് എനിക്കു മരിക്കാടാ മോനേ?" അമ്മയുടെ ആ വാക്കുകൾ ജോണിയുടെ ഹൃദയത്തിൽ മാറെറാലിക്കൊണ്ടു. പല പുതിയ പ്രതിജ്ഞകളും അവനിൽ ഉടലെടുത്തു. തൻെറ ജീവിതലക്ഷ്യം അമ്മയുടെ ആ പഴകിയ ആഗ്രഹം നിറവേററലാണെന്നു അവനുറച്ചു.

ജോണി ചെന്നു് പ്രവേശിച്ചതു് പുതിയൊരു ലോകത്തിലായിരുന്നു. മത്സ്യത്തിന് കരയിൽ ജീവിപ്പാൻ സാദ്ധ്യമാണോ? അവിടെ കാണുന്നതും കേൾക്കുന്നതും എല്ലാം പണത്തിൻെറ പകിട്ടുതന്നെ. സ്വന്തം കീശ "എംററി" യാണെന്നു മാത്രം.

നോട്ടുകൾ കെട്ടഴിപ്പാനുള്ള ഒരു പ്രദർശനശാലയാണത്രേ കലാലയം! പരിഷ്ക്കാരങ്ങളുടെ ഒരു പ്രദർശനശാല!! അതിൽ പാവപ്പെട്ട നമ്മുടെ ജോണിക്കെന്തു സ്ഥാനം? രണ്ടു ഷർട്ടുകളാണവനു് പ്രദർശനത്തിനുള്ളതു്. ഒന്നു കീറിയതും, ഒന്ന് "പതിനൊന്നാണക്കാരൻ" പുതിയതും.

കലാലയവാസികളുടെ കണ്ണിൽ ജോണി ഒരു കുററവാളിയാണ്. ഹോസ്റ്റലിൽ അവനെ ആർക്കും കണ്ടുകൂടാ. കാരണം അവനൊരു പരിഷ്ക്കാരിയല്ല. അവനു പ്രദർശനവസ്തുക്കളൊന്നുമില്ല. അവനുള്ളതു് രണ്ടു ഷർട്ടും രണ്ടു ധോത്തിയും മാത്രം. ഇല്ലാത്തതാണെങ്കിൽ പലതും. "മണമുള്ള ചുണ്ണാമ്പും" നീളമുള്ള കളസവും അങ്ങനെ പലതും അവനില്ലാത്തതാണ്.

പാൻറില്ലായ്മ ഹോസ്റ്റലിൽ ഒരു കോളിളക്കംതന്നെ സൃഷ്ടിച്ചു. പല പുതിയ കൂട്ടരും ജോണിയെ വെറുപ്പാൻ തുടങ്ങി. ജോണി അവരുടെ അഭിമാ

നത്തെ അവൃത്തുകളയുകയാണുപോലും! അവരുടെ പാരമ്പര്യത്തെ നശിപ്പിക്കുകയാണുപോലും! ഒരു പാൻറിന് ഇതെല്ലാം നേടികൊടുപ്പാൻ സാദ്ധ്യമാണോ?

"പക്കിരി സ്വാമി" ഒരു വലിയ ഗ്രൂപ്പിൻെറ ലീഡറാണ്. കളികഴിഞ്ഞു ഒരു സായംകാലം എവരുംകൂടെ "ഐ. സി. എച്ചി"ൽ സമ്മേളിച്ചു. ഏവരും ഗൗരവപൂർവ്വം ആലോചിക്കുകയാണ് ജോണിക്കൊരു കൊത്തിപ്പേരു് നൽകുവാൻ.

"ഇരട്ടഷർട്ടു്" എന്നുതന്നെ പോരെ? ലീഡർ തൻെറ പഴയ വാദം വീണ്ടും എടുത്തു.

"പോരാഞ്ഞിട്ടല്ല. അതിലും നന്നാക്കണമെന്ന ഉദ്ദേശമാണ്". മററൊരുവൻ ഉത്തരം നൽകി.

'ചിപ്സ്" പാത്രത്തിൽനിന്നും പറക്കാൻ തുടങ്ങി. പക്കിരി ഫാൻ ഓഫ് ചെയ്തു.

"എൻെറ പേരു് അളിയനങ്ങ് ചെയിഞ്ച് ചെയ്താലെന്നാ?" പരമേശ്വരൻപിള്ള പ്രമേയം അവതരിപ്പിച്ചു.

"ബലേ ഭേഷ്! 'അൾട്ടാങ്കി' തന്നെയാണ് സൂട്ടബ്ൾ."

ഏവരും അതിനെ പിൻതാങ്ങി. അങ്ങനെ അൾട്ടാങ്കി എന്ന അന്ത്യതീരുമാനത്തോടെ യോഗം പിരിഞ്ഞു.

ഇത്തരത്തിലുള്ള പല സംഭവങ്ങളും ജോണിക്ക് ദിനംപ്രതി അനുഭവപ്പെടാൻ തുടങ്ങി. അപ്പോഴെല്ലാം അമ്മയുടെ ആ പഴകിയ പ്രാർത്ഥന ജോണി സ്മരിക്കും.

ആരെന്തും പറഞ്ഞോട്ടെ. പേരെന്തും ആയിക്കൊള്ളട്ടെ. ജോണി ക്ലാസ്സിൽ ഒന്നാമനാണ്; പ്രൊഫസ്സർമാരുടെ കണ്ണിലുണ്ണിയാണ്.

സഹപാഠികളുടെ അസൂയക്കൊപ്പം ജോണിയുടെ മാർക്കുകളും കൂടിവന്നു. "കോളേജ് ഡേ" അടുത്തു. ജോണിക്കു പതിമൂന്നു സമ്മാനങ്ങൾ ലഭിക്കുവാൻ പോകുന്ന ദിവസമായിരുന്നു അതു്. പതിമൂന്നു പ്രാവശ്യം അവനു് സ്റ്റേയിജിൽ കയറിയിറങ്ങണം.

പക്ഷേ, ജോണിയുടെ ഹൃദയം നീറിനീറിക്കൊണ്ടിരിക്കയാണ്. പാൻറില്ലാപ്രശ്നം നമ്മുടെ ഭാഷാപ്രശ്നംപോലെ അവനു അനുഭവപ്പെടാൻ തുടങ്ങി.

"സമ്മാനം കിട്ടേണ്ടിയിരുന്നില്ല". ജോണി സ്വയം വിധിയെ പഴിച്ചു.

"ഒരു പാൻറു് കടം വാങ്ങിച്ചാലെന്താ?" ആലോചന പോയതു് പിന്നെ ആ വഴിക്കാണ്. ആ സാധുവിനെ ചുമ്മാ ഇരിപ്പാനനുവദിക്കാത്ത സ്നേഹിതന്മാരാണോ ഒരു പാൻറു് കടംകൊടുപ്പാൻ തയ്യാറാവുക?

"എൻെറ അപ്പനുണ്ടായിരുന്നെങ്കിൽ" ജോണിയുടെ കൺതടങ്ങളിൽ അശ്രുബിന്ദുക്കൾ നിറഞ്ഞു. അദ്ദേഹം പട്ടാളത്തിൽ പോകുമ്പോൾ ജോണി അമ്മയുടെ വയററിൽ ഇരിപ്പാണ്. ഭാര്യ വളരെ എതിർത്തു; കൊഞ്ചിക്കുഴഞ്ഞു; താണുകേണപേക്ഷിച്ചു. ആ അവസരത്തിൽ അതിവിദൂരമല്ലാത്തൊരു നല്ല നാളയെ അവളുടെ ഭാവനയിൽ വരച്ച് അദ്ദേഹം നാടുവിടുകയാണുണ്ടായതു്. അധികം താമസിയാതെ പട്ടാളത്തിൽ ജോലി കിട്ടി. ജോണി പുറത്തു വരികയും ചെയ്തു.

കാലചക്രത്തിൻെറ ചുററിത്തിരിച്ചലിൽ ജോണിയുടെ അമ്മ ഒരു വിധവയായി. പക്ഷേ ജീവിതം മുന്നോട്ടുപോയിക്കൊണ്ടേയിരുന്നു. പുതിയവ പലതും പഴമയുടെ ചിതൽപ്പുററുകളിൽ നാമ്പെടുത്തു.

ജോണി അമ്മയ്ക്കൊരു എഴുത്തെഴുതുവാൻ നിശ്ചയിച്ചു. നിറഞ്ഞ കണ്ണുകൾ! ഇടറുന്ന ഹൃദയം! വിറക്കുന്ന കരത്തിൽ പതറുന്ന തൂലിക! പക്ഷേ ജോണി അതു് എഴുതിത്തീർത്തു. അങ്ങനെ പാൻറിനായി താലിച്ചെയിൻ പണയംവെക്കുവാൻ അമ്മയോടവൻ ആവശ്യപ്പെട്ടു.

'കോളേജ് ഡെ"യുടെ തലേന്നാൾ. ആ ദിവസം പരീക്ഷപോലെ പറന്നാണെത്തിയതു്. ദിവസം ഒന്നേ ബാക്കിയുള്ളൂ. ജോണി തൻെറ വിധിയെ പഴിക്കുവാൻ തുടങ്ങി. ജീവിതം അവനു് ഒരു ഭാരമായിത്തോന്നി.

വെറും ഒരു പാൻറിൻെറ അഭാവത്താൽ ഒരു യുവാവു് ഒരു ജീവിതത്തെ പഴിക്കുകയാണു്. തൻെറ നിരാശയ്ക്കു കാരണം സ്ത്രീയല്ല; അന്ധമായ പ്രേമമല്ല; അനാവശ്യമായ അഹംഭാവമല്ല; യഥാർത്ഥമായ അഭിമാനം! അതു വേണ്ടതുമാണു്. അതില്ലാത്ത മനുഷ്യൻ മനുഷ്യനല്ല. കഷ്ടം! ഇപ്പോൾ അതുള്ളവനും മനുഷ്യനല്ലാതാകുവാൻ പോകയാണു്. ഇതാണു് ലോകത്തിൻെറ നീതി!

ജോണി കമ്പിശ്ശിപായിയെ കാത്തിരിപ്പാണു്, നിരാശനിറഞ്ഞ നിമിഷങ്ങളെ തള്ളിനീക്കിക്കൊണ്ടു്. അവനു് ഇത്തരത്തിലുള്ള നിമിഷങ്ങൾ വളരെ കുറച്ചേ അനുഭവപ്പെട്ടിട്ടുള്ളു. പരീക്ഷാഹാളിൽ ഫസ്റ്റ് ബല്ലിനുശേഷം ചോദ്യക്കടലാസിനേയും പ്രതീക്ഷിച്ചിരിക്കുന്ന സന്ദർഭങ്ങളിൽ മാത്രം! പക്ഷേ ആ സന്ദർഭങ്ങളിലൊന്നും ജോണി വിധിയെ പഴിക്കാറില്ല; ജീവിതത്തെ വെറുക്കാറില്ല. കൂട്ടുകൂട്ടാത്ത ഒരു ജിജ്ഞാസമാത്രമേ അന്നെല്ലാം അവനനുഭവപ്പെട്ടിട്ടുള്ളൂ.

ഡിന്നറിനുശേഷം ജോണി പാക്കിൽ ഇരിപ്പുറപ്പിച്ചു; കറിക്കു പിണങ്ങിയ കൊച്ചിനെപ്പോലെ. "ശിപായി വരാതെ ഞാൻ എണീക്കയില്ല". അവൻ ദൃഢപ്രതിജ്ഞചെയ്തു.

മന്ദാനിലൻ ഉണ്ടാക്കുന്ന മർമ്മരശബ്ദത്തിൽ ജോണിക്കു് അതൃപ്തിയാണുണ്ടായതു്. ഫൗണ്ടൻ വെള്ളത്തുള്ളികൾ അതിവേഗത്തിൽ തുപ്പിക്കൊണ്ടിരുന്നു. കിളികളുടെ കളകളാരവം, ആശകൾ നിറഞ്ഞ ജോണിയുടെ ഹൃദയത്തെ കരളുകയാണു്.

'കമ്പി മണി ഓർഡർ' വരുമെന്നു് ജോണിക്കു നല്ല ഉറപ്പുണ്ടു്. കാരണം, ആവശ്യങ്ങൾ മാത്രമേ ജോണി ആവശ്യപ്പെടാറുള്ളൂ. ജോണിക്കു് അതെല്ലാം അമ്മ നൽകിയിട്ടുമുണ്ടു്.

"പത്തുരൂപാതന്നെ അയച്ചുതരും" ജോണി പതിവുപോലെ മനക്കോട്ടകൾ നിർമ്മിക്കുവാൻ തുടങ്ങി. "അതിൽ ഒരണ ശിപായിക്കു കൊടുക്കണം; മൂന്നു രൂപ എൻെറ പെട്ടിക്കകത്തും. ബാക്കി മതി പാൻറിനു്".

ഒരു കാക്കി ഷട്ടു് ജോണിയുടെ കണ്ണിൽപ്പെട്ടു. വാടിനിന്നിരുന്ന ജോണിയുടെ പ്രതീക്ഷകൾ പച്ചപിടിച്ചു. പിടഞ്ഞെണീററു് ലെക്കോട്ടു് അതിവേഗത്തിൽ പൊട്ടിച്ചു; വിദ്യാർത്ഥി പരീക്ഷാഫലം നോക്കുന്നതുപോലെ. പക്ഷേ, അവനാ പരീക്ഷയിൽ തോററുപോയി!

മാതാവു് താലി പണയംവയ്ക്കുവാനല്ല, വില്ക്കുവാൻതന്നെ ജോണിയെ അധികാരപ്പെടുത്തി വിടവാങ്ങിയിരിക്കുകയാണു്!!

വള്ളത്തോൾ കവിത

By K. T. Joseph, I U. C.

"കേരള വാൽമീകി" എന്നും "മലയാളി ടാഗോർ" എന്നുമുള്ള അപര നാമങ്ങളാൽ സുപ്രസിദ്ധിയാർജ്ജിച്ചിട്ടുള്ള ദേഹവും, ആധുനിക മലയാള കവി കോകിലങ്ങളിൽ അഗ്രഗണ്യനും, തികഞ്ഞ ദേശാഭിമാനിയുമായ, ആസ്ഥാന മഹാകവി വള്ളത്തോളിന്റെ കവിതകൾക്കുള്ള പ്രധാനമായ സവിശേഷത കളെ പ്രതിപാദിക്കുകയെന്നതാണു് ഈ ലേഖനോദ്ദേശം.

വള്ളത്തോൾകവിതയെക്കുറിച്ചു ചിന്തിക്കുന്ന ഒരു സഹൃദയനു് കാണു വാൻ കഴിയുന്ന പ്രഥമവും പ്രധാനവുമായ സവിശേഷത അദ്ദേഹത്തിന്റെ ഭാഷാശൈലിയിലുള്ള ഹൃദയാകർഷകത്വമത്രേ. ഗഹനങ്ങളായ വിഷയങ്ങളെ ലളിതസുന്ദരമായി പ്രതിപാദിക്കുവാൻ വള്ളത്തോൾ വിദഗ്ദ്ധനാണു്. കവിത വായിക്കുമ്പോൾത്തന്നെ അർത്ഥവും മനസ്സിലാകത്തക്കവിധം സരളകോമളമായ ഒരു രീതി അദ്ദേഹത്തിന്റെ കവിതകളിൽ കാണാവുന്നതാണു്. താഴെ ഉദ്ധ രിക്കുന്ന ഭാഗത്തുനിന്നും മേല്പറഞ്ഞ സവിശേഷത ഏറക്കുറെ മനസ്സിലാക്കാം.

"തൂവെള്ളിച്ചങ്ങലത്തുമ്പത്തതാതിടം
തൂക്കിയ ദീപത്തിൻ ദീപ്തിപൂരം
ദൂരിതമാക്കുമാറങ്ങണഞ്ഞിതൊരു
പൂരുഷരൂപമാം തേജ:പുഞ്ജം".

സംസ്കൃത മലയാള പദങ്ങളുടെ ഇടകലർത്തിയുള്ള പ്രയോഗം വള്ളത്തോൾ എത്ര ഭംഗിയായി നിർവ്വഹിച്ചിരിക്കുന്നു!

അടുത്തതായി അദ്ദേഹത്തിന്റെ കവിതകളിൽ കാണാവുന്ന ഒരു സവിശേഷത, ധ്വന്യാത്മകമായ രീതിയിലുള്ള കഥാവതരണമത്രേ. "മഗ്ദലന മറിയ"ത്തിൽ വള്ളത്തോൾ കഥാവതരണംചെയ്തിരിക്കുന്ന രീതി ഇതിനുദാഹ രണമാണു്.

"വാർതിങ്കൾത്തോലമെടുത്തവസന്തരാ-
വേതൊ വെൺചാറൊന്നു പൂശിയ്ക്കയാൽ
ശ്രീല 'ഗലേല'ജില്ലയ്ക്കൊരു തൂമുത്തു-
മാലയായ് മിന്നീ 'നെയിൻ' പട്ടണം". എന്നീ വരികൾകൊണ്ടാണ ല്ലോ "മഗ്ദലനമറിയ"ത്തിൽ കവിത ആരംഭിക്കുന്നതു്. വസന്തരാവു്, വെൺ ചാറു് മുതലായ പദങ്ങളുടെ പ്രയോഗംകൊണ്ടു്, തന്റെ കവിതയെ സമാക ർഷകമാക്കുവാൻ പോകുന്നതു് സൗന്ദര്യത്തെ ആശ്രയിച്ചു നിൽക്കുന്ന ശൃംഗാര രസമാണെന്നു് കവി സൂചിപ്പിക്കുകയാണു ചെയ്യുന്നതു്.

ഇനിയും വള്ളത്തോൾ കവിതകളിൽ സാർവ്വത്രികമായി പ്രശോഭിക്കുന്ന സവിശേഷത ഗാനാത്മകതയും രചനാസൗകുമാര്യവുമത്രെ.

"ചെമ്പക കങ്കേളി കുന്ദാദി പുഷ്പങ്ങ-
ളെമ്പാടും ചിന്നിയ വന്യഭൂവിൽ,
അമ്പാടിതന്നിലെ ചെങ്ങാതിമാരൊന്നി-
ച്ചൻപാളും ഗോവിന്ദനെന്നപോലെ". മേലുദ്ധരിച്ച വരികൾ ഗാനാ ത്മകതയ്ക്കും രചനാസൗകുമാര്യത്തിനും മകുടോദാഹരണങ്ങളാണു്.

വള്ളത്തോളിൻെറ കവിതകളിൽ കാണാവുന്ന മറെറാരു സവിശേഷത യാണു് വാങ്ങ്മയരൂപചിത്രീകരണ പാടവം. സംഭവങ്ങളെ ഒരു ചിത്രത്തിലെന്നവണ്ണം കവിതയിലൂടെ ചിത്രണംചെയ്യുവാൻ വള്ളത്തോളിനുള്ള കഴിവ് അന്യാദൃശമത്രേ.

"കാലുകൾ പിമ്പോട്ടു മടക്കി തൃപ്പൊൻചുമൽ
താഴ്ചെയിടംകൈ വിരിപ്പിലൂന്നി,
തെല്ലിടത്തോട്ടുചാഞ്ഞുണ്മാനിരിപ്പായി,
സല്ലീലനീശ്വരൻ നിത്യതൃപ്തൻ". എന്ന ഭാഗം വായിക്കുന്ന സഹൃദയനു് ഉണ്ണാനിരിക്കുന്ന ക്രിസ്തുവിൻെറ ഒരു ചിത്രം മനോമുകുരത്തിൽ ദർശിക്കുവാൻ സാധിക്കും.

നിലവിലിരിക്കുന്ന സാമുദായികാസമത്വങ്ങളെ കവിതയിലൂടെ ചിത്രീകരിച്ചു്, അവയ്ക്കു പരിഹാരം കണ്ടെത്തുവാൻ വള്ളത്തോൾ ശ്രമിക്കുന്നു.

"ഏഴെട്ടുകാശിൻെറ ഉന്മാദത്തള്ളലേ,
പാഴ്ററ നിൻതല താഴില്ലെന്നോ". എന്ന ഈരടികൾകൊണ്ടു് കവി ദുഷിച്ച മുതലാളിത്തത്തോടുള്ള തൻെറ വെറുപ്പു് പ്രകടമാക്കുകയാണു ചെയ്തിരിക്കുന്നതു്.

അചേതനങ്ങളിൽ സചേതനത്വമാരോപിച്ചുകൊണ്ടുള്ള വർണ്ണനകൾ വള്ളത്തോൾ കവിതയിൽ സുലഭമാണു്.

"അ'ത്താബോർ'മാമല ശിഷ്യരോടൊത്തിരു-
ന്നത്താഴമുണ്ണുന്ന ക്രിസ്തുവിനെ
തേൻകുളിർവല്ലിനികുഞ്ജത്തിൽനിന്നോലും
പൂങ്കുയിൽക്കുകലാൽ വാഴ്ത്തിപ്പാടി". എന്നിങ്ങനെയുള്ള വരികൾ മേൽപ്പറഞ്ഞ സവിശേഷതയെ ഉച്ചൈസ്തരം വിളംബരംചെയ്യുന്നവയാണു്.

ചുരുങ്ങിയ വാക്കുകൾകൊണ്ടു് പ്രതിപാദ്യവിഷയത്തെ സമാകർഷകമാക്കുവാൻവേണ്ടി മഹാകവി വള്ളത്തോൾ ഹൃദ്യമായ രീതിയിൽ അലങ്കാരപ്രയോഗങ്ങൾ നടത്തി തൻെറ കവിതാകാമിനിയെ മോടിപിടിപ്പിക്കുന്നു. ഏററം ഉചിതമായ രീതിയിൽ അലങ്കാരപ്രയോഗം നിർവ്വഹിക്കുവാൻ അദ്ദേഹത്തിനുള്ള വാസന പ്രസ്താവാർഹംതന്നെ.

"താഴത്തേയ്ക്കെന്തിത്ര സൂക്ഷിച്ചുനോക്കുന്നു
താരകളെ നിങ്ങൾ നിശ്ചലരായ്?
നിങ്ങൾതൻകൂട്ടത്തിൽ നിന്നിപ്പോഴാരാനും
ഭംഗമാർന്നൂഴിയിൽ വീണുപോയോ?" എന്നിങ്ങനെയുള്ള വരികളിൽ നിന്നും മഹാകവിയുടെ അലങ്കാരപ്രയോഗസാമർത്ഥ്യം വ്യക്തമാണല്ലോ.

ചുരുക്കത്തിൽ മലയാളസാഹിത്യാരാമത്തിൽ സഞ്ചരിക്കുന്ന സഹൃദയന്മാർക്കു് മറക്കുവാനോ മറയ്ക്കുവാനോ ആവാത്ത അനുഭൂതികളെ ഉളവാക്കുന്നവയാണു് വള്ളത്തോൾ കവിത. അതിനു് ഒരു ജീവനുണ്ടു്; പുതുമയും, പ്രസരിപ്പും, രസികത്വവും, സൗന്ദര്യവും, ലാളിത്യവും എന്നുവേണ്ട "സഹൃദയഹൃദയാഹ്ലാദകത്വം" ഉളവാക്കുന്നതെല്ലാം അതിലുണ്ടു്. അനുവാചകഹൃദയം കവരുവാൻ അതിനുള്ള വശീകരണശക്തി ഒന്നുവേറെയാണു്; അതു വിവരിക്കുവാൻ ഞാൻ അപ്രാപ്തനാണു്. ഏതായാലും ഒരു കാര്യം തീർച്ചയാണു്, വള്ളത്തോളിൻെറ കവിതകൾ മലയാളസാഹിത്യാരാമത്തിലെ വാടാമലരുകളായി വിരാജിക്കും.

Book Review

Robert Bridges : Poetry and Prose. With an Introduction and Notes by John Sparrow, Pp. XLIV + 166. Oxford University Press, 1955. Price : Rs. 6-15.

Of Oxford's many series 'Poetry and Prose' is one of the most useful to the ordinary, non-specialist reader, for whom it is really meant. But whether Bridges is a fit subject for such a reader may be asked : for he has never been a 'popular' writer either in his lifetime or since. At any rate the choice of his poetry and prose in this little volume will go a long way to take him as near popularity as he would have cared to go.

Like his friend in the full sense of the word (except that they differed in religion) Gerard Manley Hopkins, S.J., he lived a little outside the stream of his age and was not in practical need of popularity : his ideas were sometimes too high for the middle class, and even when they were, as in his shorter poems, connected with natural scenery or common experiences, his expression, as Hopkins once pointed out in a letter, was not warm or coloured : 'In general', he wrote, 'I do not think you have reached finality in point of execution'. There are almost faultless pieces among the sonnets and even in lyrics like 'London Snow' and 'Thou Didst Delight.' But 'The Testament of Beauty' ranks with the world's great works of art no less than with the great conceptions, 'such gems'—to use his own words in another context—

> as magic master-minds in painting or music
> threw aside once for man's regard or disregard.

Bridges' prose is also well represented. Mr. Sparrow has culled such blossoms as 'Word-Books' from an article in the Times Literary Supplement, 'Henry Bradley' from the understanding and intimate Memoir of 1926, 'Poetic Diction' from The Forum, and three from 'The Necessity of Poetry' chosen with real insight into a poet's mind. It is in these selections that we find the well-known definition of the born writer which was verified in Bridges himself : 'The born writer or speaker is the man whose ideas flow spontaneously in a simple grammar which preserves the right order of ideas.' And that magnificent organ-chord of verbal music so resonant with his higher ideals :

'Now in the religion of Christ, which, whether we will it or not, whether we know it or not, is deeply ingrained in our heart's reverence and the life of our souls, and is ever rebuking and overruling our conduct—in this world-conquering Christianity the essentials are love and unity and brotherhood.'

T. N. S.

Social Service Camp at Annamangalam

By P. M. DEVADAS, III U.C.

AS soon as the College closed for the Christmas holidays on the 9th of December 1955 we, the members of the Institute of Social Service and a good many members of the Social Service League, together with Rev. Fr. Adisayam, the Director of our Institute, Mr. Hirudayanathan, lecturer in Mathematics, and Mr. Pushparaj, lecturer in Chemistry—all numbering 62—set out for our social service camp in two buses kindly provided by Mr. R. Krishnasamy Reddiar, the proprietor of the Chidambara Vilas Motor Service. The bus drive was extremely pleasant and when we reached Perambalur Mr. P. Somasundaram, the Block Development Officer, made the necessary arrangements for the inauguration of our camp at Annamangalam which we reached in the evening. On arrival we were given a rousing reception by the Parish Priest, Fr. Arokiasamy, and the prominent people of the village. The Block Development Officer placed at our disposal a generator and a 16-mm projector. With the help of our electricians, Philip and Gregory, we were able to put up electric lights and the inaugural meeting commenced. The District Educational Officer, Mr. G. Vedakkan, M.A., L.T., presided. The Block Development Officer welcomed the gathering. Mr. N. Paramasivathu Udayar, M.L.A. inaugurated the camp. Mr. Abdul Hakim, Member, Dt. Planning Board, spoke at great length on the responsibilities of students during the camp. Fr. Adisayam appealed to the villagers to cooperate with the students in accomplishing the task assigned to them during the camp. Fr. Arokiasamy proposed a vote of thanks. Three reels on health and hygiene supplied by the Field Publicity Officer were screened to the great delight of the villagers. Thus began our camp at Annamangalam.

The set-up of the camp was excellent. We were lodged very conveniently in the Catholic Elementary School with the kind permission of the Rev. Mother of the local St. Rita's Convent. Since the Block Development Officer placed his generator at our disposal for the duration of the camp, we put up electric lights in the school and also in the temporary stage where we had our cultural activities almost every night. We thank the Block Development Officer for providing us with this amenity which is indeed a luxury in a backward village like Annamangalam. This amenity contributed much to our cheerfulness and also to the success of our cultural activities. We staged 4 plays and had 5 or 6 film shows. Mr. S. Pushparaj, assisted by Aboorvasamy and Nagasundaram, spared no pains to make our cultural activities popular and fruitful. Aboorvasamy and Gnanaraj were

the best comic actors that won the admiration of the villagers. The plays that were staged were very instructive and the people learnt through entertainment the value of education, thrift, and hygiene. The films that were shown were all on different aspects of village life like Agriculture, Co-operation, and Sanitation. These films were placed at our disposal by the Field Publicity Officer, Mr. D. M. Thanapandian, who visited us one day and gave a very interesting talk to the villagers. We are very grateful to him for his kind help.

The work we were expected to do during our camp was varied. The excavation of the foundation of the extension to the Catholic Elementary School and a similar excavation of the foundation of the New Maternity Centre claimed priority, and this work was entrusted to a batch of 15 students under the leadership of Roche and completed to the entire satisfaction of the Engineer in charge. Harvesting a paddy field of half an acre was assigned on the second day to a batch of 12 students under the leadership of Gnanapragasam. When our students entered the field the villagers were mocking and laughing; but when they saw that the work was completed within two hours and when they saw our students carrying the harvested paddy to the Parish House, they came out in open admiration. The same batch undertook the work of digging a well in the Harijan quarters to drain off rain water and thus prevent water-logging in that locality. This work was, after some time, taken up by the villagers themselves. Similarly we helped the villagers to start digging a well for the Harijans, and once the work was commenced the villagers came forward to finish it.

In addition we were told to make a road from Annamangalam to Viswagudi, a distance of a mile. We gladly took up this work also. This was a hard task, since the ground was rocky and we had no proper implements to dig with. We divided ourselves into batches of 10 and worked very hard under the leadership of Fr. Director assisted by Mr. S. Pushparaj and Jambunathan. The work went on merrily and we finished three furlongs of the road with the help of the villagers of Viswagudi. The Block Development Officer and the Engineer in charge admired our earnestness and acknowledged that within the time given us more could not have been done.

But by far the greatest achievement which endeared us to the villagers was our contribution to the extinguishing of the fire which broke out in the village at 3-45 p.m. on 12 December. A hut had caught fire through the indiscretion of an old woman and there was a breeze which threatened to spread the fire throughout the village. The smoke was choking. In spite of all these handicaps we rushed, got to the house-tops, and removed the thatched roofing to prevent the spread of the fire. We organised without any delay the supply of water to extinguish the fire. All the brass vessels from every house were taken, every one of us worked, and within

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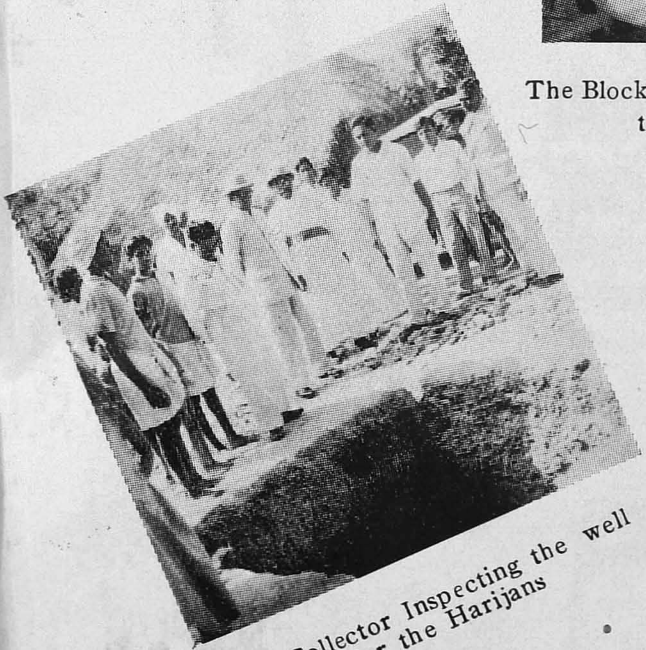
MADRAS

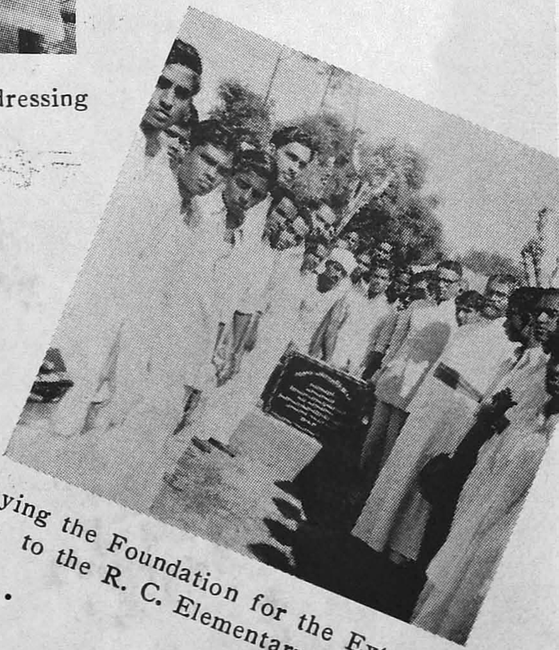
Digging the Foundations for the Maternity Centre

HARVESTING

The Block Development Officer Addressing the Valedictory Meeting



The Collector Inspecting the well for the Harijans



Laying the Foundation for the Extension to the R. C. Elementary School

ANNAMANGALAM

Social Service Camp (December 1955)
ANNAMANGALAM

15 minutes the fire was extinguished. The village men were at first afraid to go near the fire, but when they saw us rushing into the thick of it they also came forward to help. When the fire was finally extinguished with only two huts burnt down, we were hailed as the saviours of the village and from that time onward wherever we went the people respected us and praised us for our courage and prompt assistance. We on our part had the satisfaction of having rendered real service to the people of Annamangalam in their hour of distress.

As for the internal organisation of the camp, the Mess was ably conducted by Mr. Hirudayanathan assisted by Pannirselvam and Rosary. Fr. Arokiasamy, the Parish Priest, helped a good deal in this matter. We are very grateful to Br. Susai Arul and Br. Pappu for their kind help in sending the provisions to our camp day by day. The health of the students was under the direct care of Fr. Director who administered drugs to the ailing and bandaged the cuts and bruises caused by clumsy handling of implements. In this he was ably assisted by C. R. Subramanian. Our Medical Department earned a very good name in the village because several cases from the village were successfully treated.

By far the most prominent feature of our camp was our Assembly. All the campers assembled in the quadrangle in front of the church before the commencement of the day's work. We formed a square around the flagstaff. Every morning Fr. Director hoisted the National Flag and we all saluted it. Susai Arul sang a national song after which all of us spent a minute in silent prayer invoking God's protection during our work. This prayer was very helpful. Snakes and scorpions were in abundance at the spot where we were making a road; and even though we were very near being stung, we all escaped almost miraculously. After prayer Fr. Director used to address us, praising us for our good work and admonishing us of our shortcomings. One of the Village Development Officers, Mr. Thirumalaisamy, also spoke to us in Tamil. When the Parish Priest of Perambalur visited us he made an excellent speech, pointing out that real social service should be based on love of God and love of man, treating all as our brothers without any distinction of caste or creed.

Our camp came to a close on 23 December. Early in the morning we had our Assembly as usual and then prepared for the Valedictory function. The place was tidied up and the stage was decorated. Mr. Ponniah from Trichy came to take photos. At 10 a.m. the Collector of Trichy, Mr. R. S. Malayappan, I.A.S., accompanied by several important officials, arrived. Fr. Director received the distinguished visitors and a group photo was taken. Then the Collector inspected the various works performed by us and he was really astonished that so much was done in so short a time. He laid the foundation for the Maternity centre and the extension to the R. C. Elementary School. He presided over our Valedictory meeting. The Block Development Officer, Mr. P. Somasundaram,

welcomed the gathering. The villagers presented a farewell address to the students. Fr. Director thanked themf or their kind co-operation during our camp and bade them goodbye. Mr. M. Palanimuthu, M.L.A., Mr. Rengasamy, the new Dt. Agricultural Officer, and Fr. Rajamanickam, the Parish Priest of Palayam, spoke. The Collector in his turn spoke very appreciatively of the spirit of service found among the students of St. Joseph's College and expressed the hope that they would be more and more serviceable in the various villages of the District. Fr. Arokiasamy proposed a vote of thanks. Dinner followed immediately, all the distinguished guests participating. Two buses arrived in time to take us back to Trichy and at about 2–30 p.m. we left Annamangalam after offering our sincere gratitude to the Parish Priest and the people of Annamangalam for their kind hospitality during the happy days we spent among them.

Intelligence Test

Atoms are to nucleus
As planets are to Sun
And tear-drops are to Tragedy
As laughter is to Fun.

The dipping yacht is to its helm
As stallion is to rider
And hemlock is to lethal glass
As apples are to cider.

The poet counts his golden words
As miser counts his riches
And Viscounts carry business men
As broomsticks carry witches.

A conscience is to criminals
As stomach-ache to gluttons
And man holds fast to faith and hope
As braces cling to buttons.

—RONALD DEADMAN

(Punch)

The late Mr. A. Irudayaraj

AT about 7-30 p.m. on Saturday, November 5, 1955, Mr. A. Irudayaraj passed away suddenly from a heart attack. As the news quickly spread through the town, everyone was shocked. For it was so unexpected. Since recovering from his serious illness a year before, he had been in normal health, though there was a slight trace of fatigue after the Municipal elections held in October 1955, which he contested and unfortunately lost. On the very day of his death he attended College as usual and gave his classes. In the Moral Science class, strange to say, he spoke on the subject of death. Was it a mere coincidence? Or had he any presentiment of his approaching end? . . . . In the Economics class which he took in the afternoon he left unfinished the last sentence he was dictating because the bell went, but he little dreamt that he would not live to complete that sentence as he had hoped to do in the next class. On going home from College he had his tea and left to spend the rest of the evening with a close friend who was living near by. While he was there, using his good influence to settle some difference of opinion which was referred to his mediation, he fainted all on a sudden and expired shortly after, despite the prompt administration of medical aid.

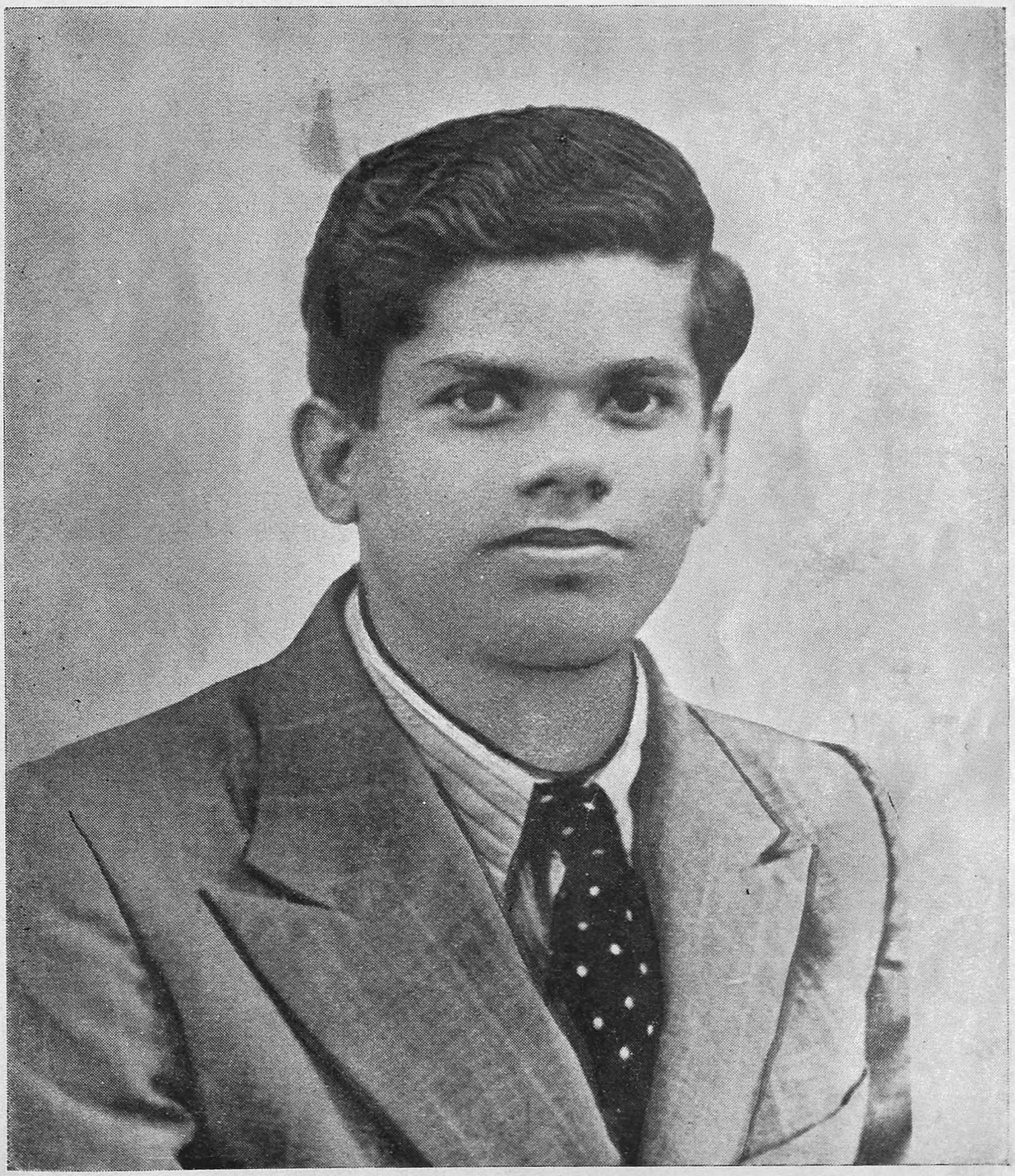
He was born in Tiruchirapalli on May 27, 1919. He had his early schooling at the Higher Elementary School of the Holy Redeemer's Parish. Later he joined St. Joseph's College High School and, after his High School course, continued his studies in the College, taking his M.A. degree in Economics with a high second class. He was all along a brilliant pupil noted for his intelligence, hard work, and, above all, good behaviour. What he imbibed at school and college by way of knowledge and character was amply reinforced and supplemented at home under the guidance of his father, the late Mr. S. Anandanayagam Pillai, who was for many years one of the pillars of the Lower Secondary department of our High School, besides being an acknowledged leader of the Catholic community of Tiruchirapalli, and who died broken-hearted a month after his son. A veteran schoolmaster steeped in the sound tradition of a generation which unhappily is fast thinning away, Mr. Anandanayagam Pillai spared no pains in moulding his son's mind and heart. And to this paternal training Mr. Irudayaraj owed not a little of his success in later life.

Soon after he had taken his M.A. degree, Mr. Irudayaraj joined the College staff on which he continued till the end of his life. He was an

able and popular lecturer. He made the subjects he taught—Economics and History—vivid and interesting. And no wonder. For he had all the gifts of a successful teacher—wide and deep knowledge of the subject, clarity of thought, forthright expression, practical wisdom, and, above all, discerning judgement which could sift the essential fiom the non-essential. He also distinguished himself in debate, taking part in several debates in and out of the College. The secret of his success as a debater lay in his ability to present a case cogently and forcefully, not without a touch of the innocent artifices of the demagogue, especially an appeal to the dominant popular sentiment of the moment. He had a remarkable facility for public speaking in Tamil. Having cultivated the modern style of Tamil platform oratory which is popular among a large section of the youth of Tamil Nad, he was in demand for lectures at students' and other functions, and won wide appreciation.

Apart from his work at college, he devoted himself to public life in which he took a keen interest. Elected to the Trichy Municipal Council for two consecutive terms, he wielded enormous influence as Councillor irrespective of party divisions and squabbles, and utilised that influence for the service of the people without distinction of caste or creed. Many are the individuals and institutions who remember with gratitude some good turn or other which he did to them in his capacity as a Municipal Councillor. Entry into public life naturally led him into political alliance of some sort. After an initial period of association with, if not affiliation to, the Congress party, he decided to remain an Independent. As an Independent he belonged to the Opposition and was critical of the ruling Congress party. This led him into the company of those who were opposed not only to the Congress but also to religion. As a result he was exposed to the naive criticism of some simple folk that in associating with them at the political level he swallowed their irreligion as well.

This criticism is utterly baseless. In fairness to him it must be stated categorically that, while he agreed with them in politics, he would have no truck whatever with their views on religion. And those who had the chance of knowing him intimately like the present writer can amply testify to this fact. It may truly be said of him that like the Irish who take their politics from home and their religion from Rome, he took his politics from his political bedfellows and his religion from the Catholic Church. Indeed, he was a zealous Catholic Actionist, giving no small part of his time and energy to Catholic activities of one kind or another. He was an active member of the Newman Association and the Secretary of the Trichinopoly Branch of the Catholic Indian Association and of the Catholic Former Pupils' Association of the College. He worked in these various capacities with great enthusiasm and success.



Mr. A. IRUDAYARAJ

✠ 1955

An aspect of his life and endeavour which merits special attention, one by which he will best be remembered, is his love and service of the poor and underprivileged. He was specially interested in their uplift and welfare. While a full record of his services on their behalf will be found in the golden book of the Recording Angel, mention may be made here of an institution which stands out as a monument to his abounding love for them. It is the cooperative society which he organised, at great personal trouble and expense, for the cobblers of the town. The Cobblers' Co-operative Society which he founded was a pioneer attempt and a successful one. It is the first of its kind in Tiruchirapalli and also the only one here so far.

At the time of his death Mr. Irudayaraj had hardly completed thirty-seven years of age and was well launched on a career full of bright promise. This as well as the suddenness of his demise add to the poignancy of the loss we have suffered. And it is indeed a great loss—the loss of a devoted teacher, a promising leader, a generous friend, and, not least, a true gentleman. May his soul rest in peace!

M. AROKIASAMY

Sacred Heart Hostel Diary

June 22 :—Reopening Day. Rev. Fr. Papiah, S.J., our new Warden, welcomes every 'old' and 'new' comer. We extend our hearty welcome to him, and express our gratitude to our former Warden, Rev. Fr. Tamby, S.J., for all his services to us. Another surprise awaits us. The very familiar and kind Fr. Froehly, S.J., our Spiritual Father, is missing. We are told that he has 'retired' from active service. While we offer our thanks to him, we welcome our new Spiritual Father, Rev. Fr. Alapatt, S.J.

June 26 :—A family gathering. Our Warden's words are filled with advice and enthusiasm: "Behave like real Catholics and bring honour and glory to your parents and our Hostel."

June 29 :—Feast of our beloved Fr. Warden. We pray for him and present a spiritual bouquet to him.

July 1 :—The Hostel "Gazette" is published, with the names of the office-bearers for this year. The sensational C.S.U. elections. Congratulations to the elected. Our merit lies not in election but in solid work.

July 17 : The Corpus Christi procession in the evening. The new route adds novelty to the occasion. The labour of the decorators and volunteers constitutes not a small part of the success of the celebration.

July 21–23 :—The Annual Retreat. A time for prayer, meditation and new resolutions. We thank our inspiring preacher, Rev. Fr. Lemahieu, S.J.

July 31 :—Feast of the Noble Knight. The beginning of the glorious Ignatian Year.

August 10 :—Feast of our beloved Fr. Rector. A spiritual bouquet is presented to him in a novel form.

Aug. 15 :—The feast of the Assumption of Our Lady and Independence Day. Mr. Ignatius Arockiasamy, M.A., hoists the national flag. Hostel mouth-organists play "Jana Gana Mana."

Aug. 27 :—Thrilling musical concert in the Lawley Hall. A fine evening indeed.

September 27 :—Reopening. Long queues in front of Fr. Warden's room. Everyone goes out after receiving advice and an Admission Bill.

October 2 :—Rev. Fr. Froehly's Diamond Jubilee day. We warmly receive the Jubilarian in the Lawley Hall, and thank him for his sixty years of sincere, useful, and unremitting service.

Oct. 3 :—The parlour of the Fathers' House is adorned by no less a personality than the 'Light of Asia.' The swelling crowds on the Mahé Ground wait for a long time in spite of the scorching sun to have a glimpse of the Prime Minister.

Oct. 16 :—Rev. Fr. Lourdu Yeddanapalli, S.J., after his tour of America and some European countries, gives us an informative and inspiring talk in the Lawley Hall.

Oct. 22 :—Annual Sports of the College. Our Juniors have come out with flying colours. They have retained Rev. Fr. Kalathil's Shield.

Oct. 23 :—Mission Sunday. Grand raffle in the morning and an equally grand auction sale in the afternoon, thanks to the generosity of our friends.

Oct. 28 :—Annual Pilgrimage to the Holy Redeemer's Church. A fine occasinn for a public demonstration of our faith.

Oct. 30 :—Feast of Christ the King. The College Choir sings :—

Rise India, thy millions lead,
And follow Christ, thy King.

November 5 :—At about 10 p.m. we receive the news of the untimely demise of our beloved teacher and friend Mr. A. Irudayaraj, M.A. The following day we go in groups to his house to see him in his coffin. In the evening all of us attend his funeral to pay our last respects to him.

Nov. 12 :—The long-awaited picnic to Tanjore. Joy is written in everyone's face. An occasion of great merriment, not excluding crackers, since it was the eve of Deepavali.

January 3 :—Reopening Day. Again long queues before Fr. Warden's room. The kind advice and encouragement of our Warden enables us once more to begin our studies enthusiastically.

Jan. 22 :—Our Hostel Day,—a day to be written in golden letters in the diary of our lives. Mr. Victor Devadoss, Dy. Collector of Trichy, hoists the Papal Flag in the morning. Mr. P. Thomas, Dy. Collector of Madurai, presides over the Social and Variety Entertainment in the evening. The items 'Pretty Maid' and 'Shadows from Kerala' receive warm applause from the audience. The Tamil play and the other items in the lawn and the Lawley Hall were much appreciated by all.

Clive's Calling

It was on 23 June 1955 that life began flowing once again in Clive's House with the seniors streaming in and Fr. Warden welcoming them.

In accordance with the traditions of our Hostel, the semi-democratic office-bearers and captains for the year were elected on 26 June 1955. The first quadrangle meeting was held on the same day when Fr. Warden reiterated his usual plea : 'Settle down to work right from the beginning.' The office-bearers and captains were reminded of their responsibilities and duties.

The Hostel Library began to function from 3 July. A considerable number of books were added this year and it is pleasing to note that the hostellers are making constant use of the Library.

Our juniors were overwhelmed with joy on the day of the first feast, 10 July, though the seniors took it as a matter of course. The inaugural address of the Tamil wing of Clive's Association was delivered on the same day by Ayyam Perumal Konar of our College.

The inaugural address of the English wing of the Association was delivered on 13 July by Mr. C. S. Kamalapathi, M.A., Lecturer in English, Jamal Mohamed College. He emphasised the social value of hostel life and added that every student must drink 'the four teas,' purity, integrity, unity, and divinity, which form the four sides of the perfect square of man's personality.

The minor picnic to Pandamangalam was on 22 July. The green paddy fields extending for miles on all sides, the cool coconut tope, the sweet murmuring brook, the rows of lemon trees, and the healthy cows and fat pigs are indeed a sweet remembrance of a happy day spent in the presence of numerous guests and of course our Fr. Warden.

Independence Day was celebrated on 15 August, when the national flag was hoisted by Professor P. R. Subramanian. There was a feast on the same day and an oratorical contest in Tamil.

Fr. Warden was kind enough to allow us to go to 'Raja Raja Cholan,' a Tamil play staged by T. K. S. brothers on 4 November.

On 6 November we were awakened to a rude sense of reality and made to realise the instability of worldly grandeur when the news of the sudden and untimely death of our beloved lecturer, Mr. Irudayaraj, reached our ears. The news was all the more shocking because he was hale and healthy the previous evening and even handled classes that day. A condolence meeting was held expressing sympathy for the bereaved family, friends and students. One minute's silence was observed.

On 12 November Mr. Devadas, M.A., of Sankaran Progressive Tutorial College, addressed the gathering.

On 13 November Deepavali dawned delightfully with the detonation of crackers. Early in the morning sweets were distributed by our Fr. Warden. At noon we had a delicious dinner.

On 19 November an oratorical competition in English was held. It is gratifying to see that a good number of junior members participated in the competition.

The last term began on 3 January 1956 with the sweet fragrance of approaching gay occasions. Our Fine Arts Exhibition was opened by Rev. Fr. Rector on Pongal day. As usual a music competition was also held.

From 19 January for three days our Hostel attracted hundreds of spectators to witness the Centenary Basketball matches held on our grounds.

On 22 January an oratorical contest in Tamil was held.

On Republic day the national flag was hoisted by Mr. Rampolla Mascarenhas. We had a feast which followed an elocution contest in English.

The Hostel day was celebrated on 12 Feb. 1956. In the morning the national flag was hoisted by Lt. Prabhakaran of our College. In the evening the function began with the usual party. It was presided over by Mr. T. Balakrishnan Nair, M.A., Principal of Presidency College, Madras. The fancy dress competition, plays and variety entertainment were interesting and enjoyable. Special mention must be made of the co-operation and enthusiasm evinced by our Juniors.

This year more high school students were admitted into the Hostel. In addition to our usual collection of birds an Aquarium was started. Our success in games and sports was as usual moderate. We had our usual quota of members in the College Societies, in the Social Service League as well as in the Institute.

S. BALAKRISHNAN, V Hons.

New Hostel Notes

Improvements. Our activities started on June 23, 1955. New Hostel looked newer with the mercury lamp mingling with the moonlight and with the dining halls decked with tables. Besides, the small family we have within the big one—Rajah, Rani, and Rajkumar, the three spotted deer in our garden—lends additional charm.

Family Meetings. On Sunday 26th June, the inaugural Family Meeting took place. Once every month all of us meet in the Assembly Hall. Fr. Warden will speak to us about aspects essential in everyday life, like points of etiquette and punctuality, study and play, will review the last month's events and advise us accordingly. These Family Meetings teach us much that our university fails to do.

Nehru's visit. Nehru's virtual visit to New Hostel, when he spoke to a lakh of people from within a few yards of our Assembly Hall, was a great occasion of this year. We had the unique privilege of seeing and hearing him from our rooms and verandas safe from the heat and the crush.

Academic. Our achievements in the academic field are well known. In the 'Varsity examination held in March '55, our Hostel got 100 per cent in B.A. Maths., B.Sc. Chem., Hons. Prelim., in all the three Hons., Maths., Physics and Economics—and in all the three branches of M.A. The lowest percentage we had was in Botany where it was 83·3. On College Day we won fourteen prizes. These were not only for compulsory or optional subjects but also for Moral Science and for Conduct.

Co-curricular. Turning to co-curricular activities, all the Associations have Secretaries from our Hostel and some of them have theirs only from our Hostel. A New-hosteller won the Inter-collegiate debate for this zone. Two New-hostellers represented our College in the Speech Contest of Trichy Rotary and won the rolling shield and the best-speaker cup. In the Fine Arts competition also two of us scored the two first prizes. In the Institute of Social Service our Hostel is amply represented. The slum of Vamadam is profoundly grateful to New Hostel for the services we rendered on her behalf.

A word about our terminal magazine 'New Hostel Writes'. It has three student-editors and encourages budding writers by giving a prize for the best article in each number.

Athletic. Turning to our athletic activities, mention must be made of the fact that five members of the College volley-ball team are from New Hostel. We won all the matches played in the Inter-Hostel Basket-ball tournament. Our General Captain, G. Narayanasamy, was selected as Captain of the College basket-ball team which has four other players from New Hostel. Our Tug-o'-war team was both technically and

physically strong and won the Popli Cup for the fourth year in succession. We also won the Fr. Rapinat Trophy for the second year in succession with a lead of 80 points over Sacred Heart Hostel. Once again the senior and junior champions were ours—Varghese Paul and R. Padmanabhan. Varghese Paul, our Athletic Captain, was also Athletic Captain of the College. We won the Rev. Fr. Siqueira Cup for senior athletics for the second year in succession by a majority of 82 points over the next team. In the Inter-collegiate meet, nine out of the sixteen College athletes belonged to New Hostel; and Varghese Paul won the individual championship for the second year in succession. Not the least of our joys this year was the fact that three of us represented Madras 'Varsity in the Inter-University Sports. On College Day we received all the prizes except one solitary shield and a single cup. To celebrate the triumph, we had a merry family tea in our quadrangle.

Our Aquarium has grown much this year; and so has our Orchestra which has had its ups and downs in past years. During the Pongal holidays we had a singing competition. E. S. Soundararajan and S. Mahadevan were judged to be the first and the second.

Old Boys. Our Old Boys' Sporting Club has had a second successful year and its membership has gone beyond 125. They had a meeting and a badminton match on our Hostel Day.

Our Motto. A word about our motto 'Cor unum'. This year we have written it down in grass and have embedded it between the first and the third block. This enables us to stand and search our hearts to see how far we follow it; and we do follow it to a great extent. People from all districts of Tamilnad, from Coorg and Mangalore are here. From adjacent Andhra and neighbouring Kerala we have representatives. Students from Ceylon have not hesitated to come through the cloudy sky. Clouded indeed is the political sky between these two countries, but that makes no difference to us.

No one can tell from the outside what religion or caste or community a New Hosteller belongs to. That is the education we get in this institution which outwardly passes for a hostel but is really a character-training home.

Our Hostel Day, 29 January, brought this training into the limelight when from the flag-hoisting at 7-15 a.m. by Mr. C. K. Ramakrishnan, our Chemistry Professor, to the pyramid-building and the music and acting in English and Malayalam till 9 p.m., everything went off without a hitch or a delay. We can never forget the generosity of Mr. G. Varadachari, Principal of National College, who at very short notice presided instead of his namesake Sir S. Varadachariar, retired Judge of the Federal Court of India, prevented by illness, and made a delightful speech.

N. JAGANNATHAN, IV Hons.

Sports and Games

1955—'56

WE are happy to record the creditable achievements of our young players and athletes who have tried their best to keep the banner of St. Joseph's College flying. We do not boast that we have won everywhere, but we have always played the game.

As usual, with a view to fish out latent talent among the freshers and shape them to take the places left by their elders, we commenced our Inter-Hostel tournaments in all games early in July. Keen competition and grim rivalry was evident, most of all in Football and Basketball. As the race was on and the points won by the Hostels were almost neck and neck, it was interesting to note that the players put forth their best for their Hostel. The results were undecided till the New Hostel team won the Badminton matches and the much coveted Rev. Fr. Pruvôt Trophy, for the seventh year in succession. The Dayscholars deserve special congratulations on winning the Ramaswamy Sivan Cup in Football for the second year in succession.

These tournaments over, the players selected from various Hostels formed the College teams and were shaped with constant practice to show their mettle in the Inter-Collegiate tournaments that followed. We are thankful to the several local clubs in Trichinopoly who helped us with practice matches and enabled us to form well-knit teams.

The College Annual Sports Meet was held on Saturday, 22 Oct. 1955, when the athletes from the several Hostels put out their best with a view to secure the Rapinat Trophy. There was keen competition and healthy rivalry in almost all events. We are glad that a few freshers like Edwin Titus, Paranjothi and Srivenkatesan have ably filled the gaps left by Paul Jacob, Sirangi and D'Costa. Edwin Titus has proved a good long-distance runner, finishing first in the Cross-Country Race and securing the P. R. Thevar cup for the Mile Race. Paranjothi has made his mark by breaking the College record in Javelin Throw. Varghese Paul and Ratnalingam continue to hold their place in the field, the former winning the Senior Championship and the latter retaining his excellence in sprints. The New Hostel team has to be congratulated on retaining the Rev. Fr. Rapinat Trophy and the Rev. Fr. Siqueira Cup for the second year in succession. The Junior competitors from S. H. Hostel put up a gallant fight and won the Rev. Fr. Kalathil shield for the second year in succession. R. Padmanabhan of New Hostel again won the Junior Championship. An interesting item of the programme was the Staff Tug-o'war. The N. C. C. Obstacle Race and the Musical Chairs for the Midgets also proved very interesting. The Annual Sports Meet in all its colour and pageantry was presided over by Lt. Col. S. Paul, Principal of Alagappa Institute of Technology, Karaikudi.

OFFICE—BEARERS
(1955—'56)

G. Doraiswamy
(*Football*)

E. S. Rajagopal
(*Cricket*)

N. Desmier
(*Hockey*)

Rev. Fr. A. J. Tamby, s.j.
(*President of Games*)

G. Narayanaswamy
(*Basketball*)

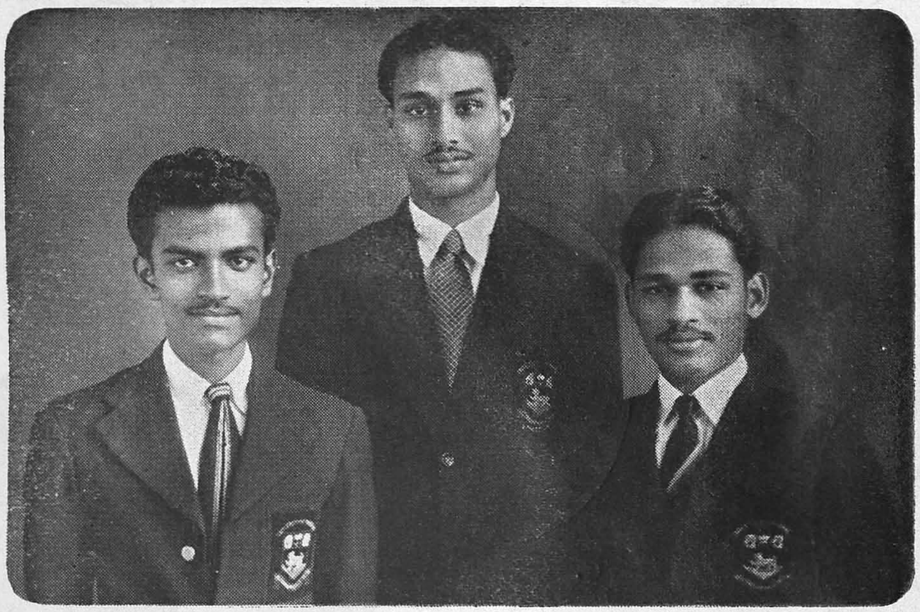
J. Rajagopal
(*Volleyball*)

Mr. N. M. Joseph
(*Physical Director*)

C. V. Joseph
(*Badminton*)

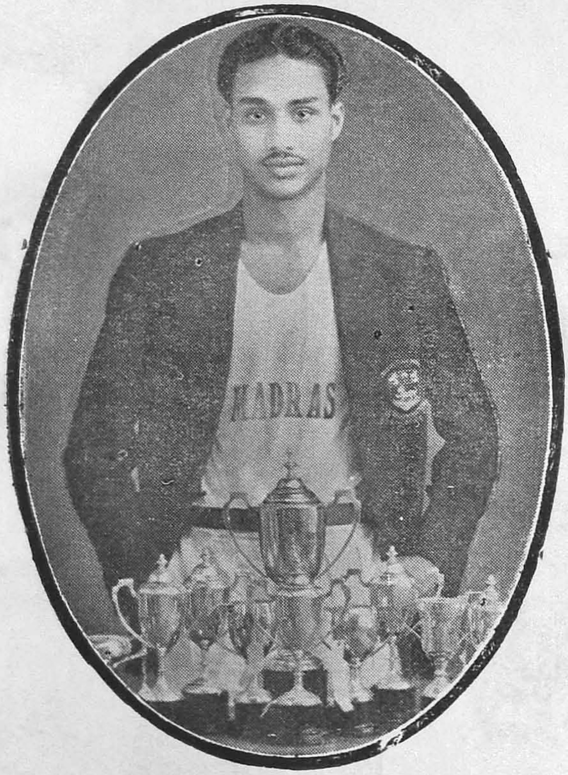
Varghese Paul
(*Athletics*)

M. V. Krishnakumar
(*Tennis*)

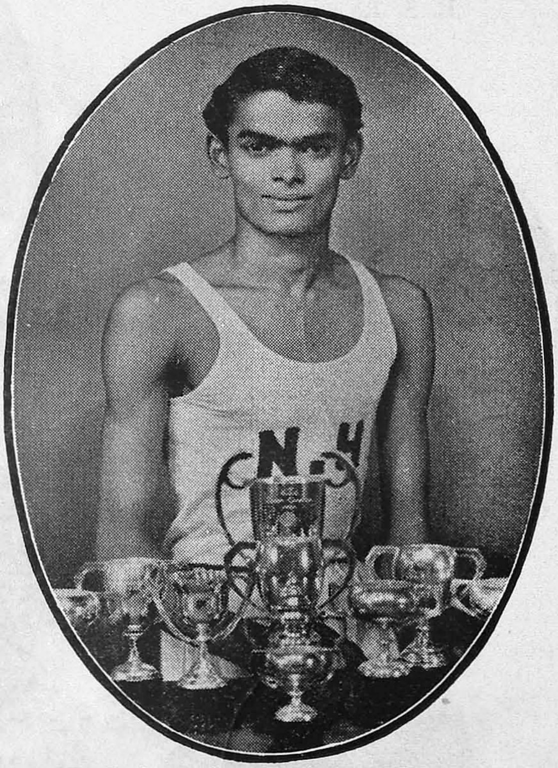


Athletes who represented Madras University
Edwin Titus, Varghese Paul and Paranjothi.

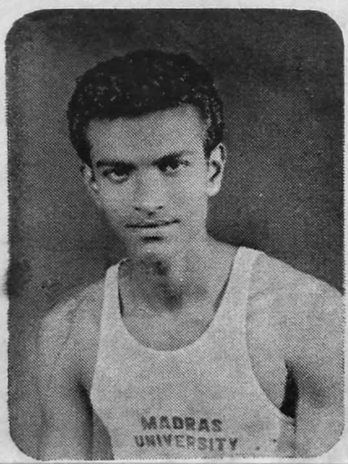
OUR SPORTSMEN

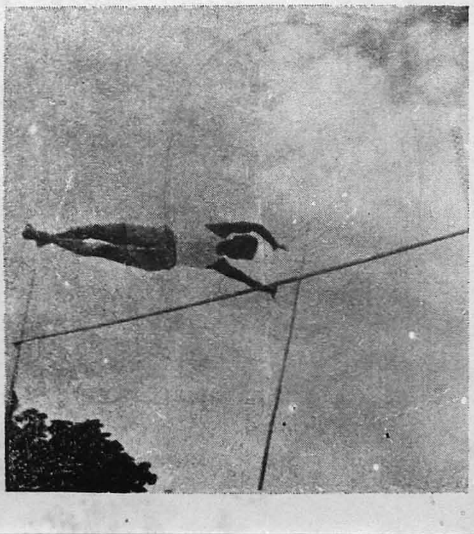


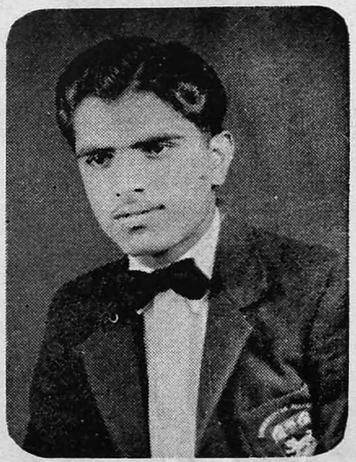
Varghese Paul—(*Senior Champion*)



R. Padmanabhan—(*Junior Champion*)







After distributing the prizes the President, who had in the past witnessed and conducted many such Meets in Madras, congratulated the organisers and the spectators on their orderliness and sporting rivalry. He particularly encouraged the losers.

At the University Inter-Collegiate Divisional Sports Meet held at Pudukottai, our athletes tried their best to retain the Popli Shield for the ninth year also, but were baffled in this attempt owing to a few unexpected reverses on the final day. But Varghese Paul, our star athlete, won the Individual Championship, while Paranjothi set up a new record in Javelin Throw. Five of our athletes later represented Madurai Division at the Inter-Divisional Sports Meet held at Karaikudi. We are glad that our athletes contributed largely to Madura Division winning the University Cup for Sports for the third year in succession. Varghese Paul, Edwin Titus, and Paranjothi had the honour of representing Madras University at the Inter-University Sports Meet at Bangalore in December.

Hockey :—Our College Hockey team consisting of a number of new players gained useful experience in the several matches they played at Coimbatore in the course of their tour in September. This stood them well in the University Inter-Collegiate matches where we defeated Jamal Md. College and Govt. College Kumbakonam in the preliminary rounds. The Zone final with Engineering College, Karaikudi, was very exciting and full of thrilling moments. It ended in a draw; next day our players displayed better team work and won the match by 1 : 0. At the final we met St. John's College, Palamcottah, winners of the University trophy last year. We record with pleasure that our players put up a gallant fight and came out successful. Thus the Pentland Shield is once again ours. At the Inter-Divisional matches held in Madras our team defeated Vellore Medical College in the semi-final, but in the final we lost to Govt. College Mercara by a solitary goal scored during extra time.

Our Hockey team has established its reputation by winning the Trichy District Open Hockey Tournament, defeating some of the very strong teams of the District. The team as a whole and individuals like Rodrigues, Edward Haliburn, and Desmier deserve congratulation.

Cricket :—Our College cricket team, ably captained by E. S. Rajagopal, spared no pains in trying to get into form by playing a series of friendly matches with the several local clubs and colleges. They gained valuable experience and promised to win the Inter-Collegiate laurels. We defeated Jamal Md. College in the first round by a comfortable margin. But an unexplainable collapse happened during the next match with National College which we lost by a narrow margin. Our juniors continue to practise at the nets and hope to do better next year. I am glad to mention that Surianarayanan, Harshan, Sivaraj and Rajagopal were some of the outstanding players in our team.

Football :—Our football team had a successful tour to the West Coast early in September, playing a number of matches at Trivandrum against some of the best teams of the place. Regular practice and good team work enabled it to figure well in the practice matches. We sincerely thank the football clubs of Trichinopoly for favouring us with a series of friendly matches. But unfortunately we did not farewell in the Inter-Collegiate tournaments. Perhaps with a 'heavier' team next year we may have better results. Doraisamy, Jeyararj and Joseph were outstanding players in the team this year.

Basketball :—Enthusiasm for Basketball continues to be on the increase in our College. While we are justly proud of our former players like Doraiswamy, Krishnaswamy, Rangan, and Rajagopal, who later represented the University and the State with credit, we do not rest on the laurels won in the past, but try to form new young players into adepts. Our College team, with G. Narayanaswamy as captain, had excellent practice early in the year. At the Loyola College tournament in August, it distinguished itself by defeating teams from Coimbatore and the metropolis. At the semi-final, they had to concede the honour to Law College, who were ultimately winners of the tourney. We entered the University Inter-Collegiate tournament with confidence and defeated National College, Govt. College Kumbakonam, and Alagappa Arts College in the early rounds. But at the Divisional final played at Virudhunagar we lost to Thiagaraja College in a close contest. It is, however, gratifying to record that the team amply made up for this at the Centenary Tournament held in January by defeating Loyola College. At the final we met our Old Boys' team. The match between the brother teams was exciting. Very healthy rivalry prevailed throughout the game. Towards the end the 'elders' gained a comfortable lead and finally won the match. We are happy to record that Old Boys like Chinnathamby, Dorairaj and Doraiswamy are taking part in the Centenary Tournament year after year.

Volleyball and Badminton :—Volleyball and Badminton continue to be popular games in the Hostels particularly among the younger students. The desire to win laurels for their Hostel in the Inter-Hostel tournaments may perhaps be one of the reasons for the large number of enthusiasts who often stand and wait outside the court to take their turn. If the same keenness continues, we are sure that these teams will also make their mark in wider spheres.

Tennis :—Our beautiful tennis courts near New Hostel have attracted a large number of enthusiastic players, both staff and students.

We defeated Jamal Mohamed College and Govt. College Kumbakonam in the early rounds of the Inter-Collegiate tournament. Krishnakumar won the Divisional final at Karaikudi, defeating a veteran player from American College Madura. Krishnakumar and Sridharan also won the

Tennis Doubles, defeating Alagappa Engineering College at the Divisional final. We are happy that Krishnakumar has also annexed the University Cup at the Inter-Divisional Contest held at Coimbatore. In Doubles the cousins went down fighting to the more experienced players of Madras Medical College. We are, however, extremely happy to record that the young cousins have just won laurels at the All-India Hard Court Tennis Tournament held in Madras, annexing the Junior doubles title.

Chess:—The Chess Club has been functioning steadily from the beginning of the year, under the personal guidance of Mr. S. Surianarayana Iyer. It is gratifying to note that this game is becoming very popular among the brainy students of the College. We are glad that as many as 32 competitors took part in the annual tournament.

Inter-Class Tournaments:—Our activities for the year are rounded off with the Inter-Class tournaments in all games. They keep up the enthusiasm and sporting spirit of the players right up to the end of the academic year. In addition the Captains of a large number of teams now taking part in the various tournaments get opportunities to organise and lead their teams in real sporting spirit.

N. M. JOSEPH,
Physical Director.

The Individual and the Group

'Life in society requires consensus as an indispensable condition. But consensus, to be productive, requires that each individual contribute independently out of his experience and insight. When consensus comes under the domination of conformity, the social process is polluted and the individual at the same time surrenders the powers on which his functioning as a feeling and thinking being depends. That we have found the tendency to conformity in our society so strong that reasonable, intelligent and well-meaning young people are willing to call white black, is a matter of concern. It raises questions about our ways of education and about the values that guide our conduct'. (SOLOMON ASCH)

Scientific American, November 1955

N.C.C. 1955–'56

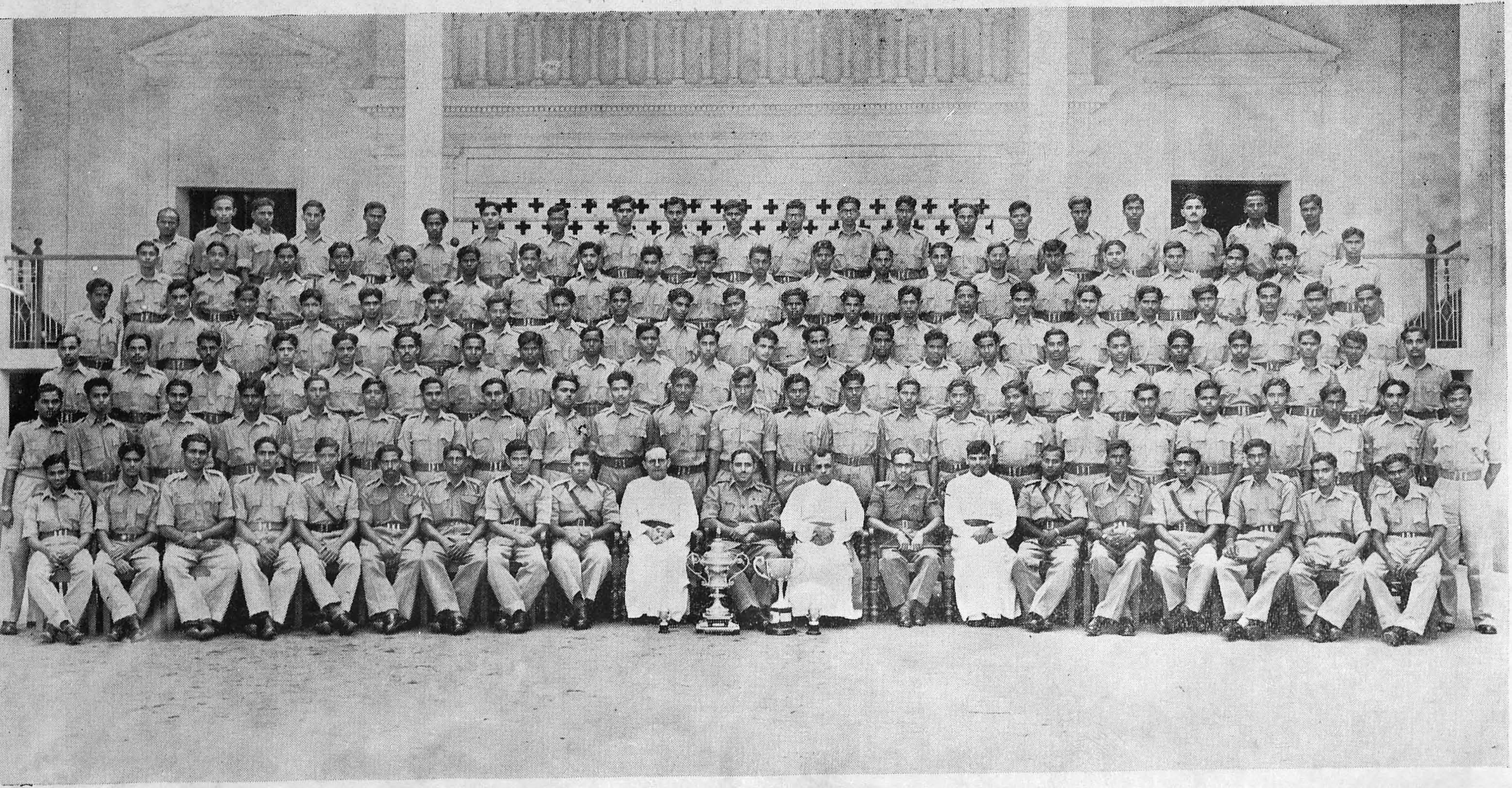
THE academic year, so far as N.C.C. activities were concerned, commenced in April, when forty cadets of our Coy. under Lt. Asirvatham attended the Social Service Camp for 21 days from 25 April to 15 May. The camp was held in the village of Chinnalapatti near Gandhigram in Madura District. The work taken in hand was the construction of a road linking Athoor with Chinnalapatti. Among the distinguished visitors to camp were Maj. Gen. J. C. Katoch, General Officer Commanding, Madras Area, and the Principals of the various colleges. During the visit of the VIPs the special ceremonial guards were commanded by one of our cadets, U/O Sunderarajan who was promoted to this rank for his brilliant performance. The hard work put in by our cadets was a major factor in winning for our Bn. the Social Service trophy.

During the year under review our team of regular staff underwent a complete change. Sub. R. M. Warrier was replaced by Sub. Gopalan, and CHMs Unni Nair and Raman Nair by CHMs Madhavan Nair and Tukaram. We take this opportunity to express our appreciation of the devoted and efficient service rendered to the Coy. by Sub. Warrier and his contemporary staff. At the same time we are happy that our new set of regular staff is already at home with us.

The recruitment of cadets began by the first week of July and quite a large number of students applied for enrolment. It is unfortunate that a good number of them had to be disappointed because of the limited number of seats available in the Coy.

During the first term we concentrated on the elementary training in drill and weapons for the recruits. Special certificate parades were held once a week for B and C certificate cadets over and above the normal training as per the training programme. Twelve senior cadets of our Coy. attended the C cert cadre camp held in the premises of Jamal Muhammad College from 19 to 26 September.

We sent four cadets to Madurai to participate in the preliminary selection for the Earl Robert's Imperial Shooting Competition and our team came second in the Bn. We did not expect a better performance from cadets who were handling the ·303 rifle for the first time. On 4 Oct., during the visit of Prime Minister Nehru to Trichy, our cadets performed a very useful piece of social service in controlling the traffic and regulating the vast crowds that thronged to see the illustrious leader. On 22 Oct., the College Sports day, the responsibility of functioning as marshals on the ground was entrusted to our cadets. In the Obstacle Race for N.C.C. conducted on the day Cpl. Mohandas stood first.



N. C. C. B. COY : 1955—'56

ST. JOSEPH'S COLLEGE BAND (1955—'56)

This year also the annual camp was held at Madurai in the same extensive grounds of the Race Course for 14 days from 10 tc 23 Dec. The engineer units and the Republic Day contingent were with us. A grand ceremonial parade was conducted on the occasion of the visit of our Circle Commander, Wing Commander. P. C. Ramakrishnan. Organised social service by way of laying roads within the Municipal area of Madurai was part of our programme in camp. In the Camp Athletics meet our Coy. distinguished itself by winning back the much coveted athletic championship trophy. L/Cpl. Varghese Paul was outstanding and Sgt. Narayanasamy did a good job as captain. We were the winners in Hockey and the hotly contested Tug-o'-war. Snr. U/O Srinivasaraghavan was adjudged the best cadet of the Bn. and U/O Sundararajan the best Guard Commander. Immense was the encouragement we received in camp by the visit of Fr. Principal, Fr. Vice-Principal, and Fr. Tamby.

On 26 Jan. we participated in the Republic Day celebrations in the College with ceremonial flag-salutation and march past when Rev. Fr. Rector took the salute. The College band under Fr. Fournier added much to the success and impressiveness of the parade.

January and February were very busy months with our special parades and intensive coaching for certificate trainees. Last year we had 93% passes in B cert. and 100% in C cert. The Bn. first in C cert. exam. was our Snr. U/O Srinivasaraghavan. This year we are sending up about 45 cadets for B cert. exam. and 12 for C cert. and we expect the usual high percentage of passes.

Thirteen cadets of our Coy. participated in the Circle Sports Rally in Madras during the first week of February. L/Cpl. Varghese Paul broke the State record in Hop Step and Jump. Contributing the largest number of cadets to the Bn. athletic team, our cadets have a major share in winning for our Bn. for the first time the Athletic Championship Shield.

Our cadets evinced keen enthusiasm and healthy rivalry in all inter-pl competitions in connection with the Coy. Day celebrations. U/O Srinivasan deserves the gratitude of the Coy. for conducting the competitions in record time with good success.

Lastly, we have to refer to a major change in the Bn., viz. in its command. After an active and unique period of association with this Bn. as its Commandant, Major W. N. C. Hensman handed over office to Major C. C. Monappa, who has already impressed us all with his dignity and demand for discipline. We assure him and Capt. Krishnan, our adm. officer, that this Coy. shall always continue to do its utmost to keep up the reputation of this Bn.

Lieut. P. PRABHAKARAN,
O. C., B Coy.

Catholic Students' Union

1955 —'56

THE College Catholic Students' Union was inaugurated on 10 July 1955. Prof. Thomas Srinivasan, M.A., L.T., in his inaugural address explained the position of Catholics in India and stressed the need for more social work and Catholic Action. After the meeting the working committee met to discuss the activities for the year. Seven study groups were formed with 140 students and they are meeting every week to study Social problems, Catholic Doctrine, and Communism. We are proud that our study circles are reaping splendid results. Every month on a Sunday we have a CSU Mass.

The President P. Sambannan and the Secretary S. David Selvaraj went to Madras to attend the Central Committee meeting of the All-India Catholic University Federation which took place on 23 and 24 July. During that meeting the new constitution was discussed clause by clause and passed.

On Mission Sunday we conducted a grand auction and raffle which were indeed a great success. The feast of Christ the King was celebrated with great zeal and enthusiasm. On that day Prof. Hirudayasamy Reddiar, M.A., B.L., presided over the combined meeting of Holy Cross and St. Joseph's CSU. C. V. Chazhur, IV U.C., and K. Martin, II U.C., spoke on "Christian Democracy" and "How to win India for Christ" respectively. On October 16 during an extraordinary meeting Rev. Fr. Lourdu Yeddanapalli, S.J., of Loyola College, Madras, gave an interesting talk about the purpose and achievements of his foreign tour.

A condolence meeting was held on 13 November, on the sudden and untimely death of our dear lecturer Mr. A. Irudayaraj, M.A., who had rendered valuable and praiseworthy services to both the CSU and the Newman Association.

Apart from these intellectual activities we organised a Social Service camp at Nerumbur, a village near Chingelput, from 9 to 23 December. Forty-three students of St. Joseph's joined hands with twenty-seven students of Loyola College, Madras, in championing the cause of the downtrodden and the underprivileged. Thanks to the indefatigable industry of Frs. Ceyrac and George in guiding us, we achieved our goal—the uplift of a poor village, the improvement of a tiny spot of rural India.

We are now busy raising funds for the forthcoming Second National Congress which will be held in Bangalore on 18, 19 and 20 May, 1956.

S. DAVID SELVARAJ,
Secretary.

Social Service League

1955—'56

THE League has just completed the 9th year of its existence and has steadily kept its programme. This year, however, a few I U.C. members had to be admitted owing to an emergency appeal for Relief work in the flood-affected area of Ramnad.

From the beginning of the year our workers went through the customary activities of the Social Service League : care of children, private and public hygiene, visits to the Hospital to help the patients with correspondence and amenities, rebuilding of some dilapidated houses, and an occasional feeding of children as on Independence and Republic Day. Social work is essentially silent and unostentatious. Our members have understood this, without any labour of eloquence.

During the December holidays, together with the Institute of Social Service they went for a fortnight's camp at Annamangalam, thus putting the finishing touch to their training in town slum areas by working in a rural area. We hear only praises of the foresight and attention of the organisers, the encouraging guidance of the Community Project officials, and the selfless generosity of the social workers in their hard work and hard life.

This year a new incident created a stir of novelty in our activities. Towards the middle of January, a sudden clarion call dispatched some sixteen of us to the worst flood-affected area in Ramnad Dist. between Calladithidel and Karankadu. During one full week we shared the poverty and sufferings of the victims of this terrible disaster, which baffles all description. We fed them, clothed them, worked with them, helped them to organise themselves for self-rehabilitation, and brought cheerfulness to them by our presence and sympathy. The visit of the Madras Governor was like a visit from heaven for them as well as for us. A detailed account appears elsewhere in this Magazine.

After eight days of suffering and fatigue, we passed on the torch of humanitarianism to other volunteers who came to replace us, happy to come home, but yet anxious about the unfortunate people we left behind.

Institute of Social Service

1955 — '56

OUR Institute of Social Service has within a short period of three years made its mark as an institution for training social workers. Francis Irudayaraj, of the first batch of trainees, was selected by the Rural Development Department of the Government of Madras for the post of Khadi Inspector and is undergoing training in Coimbatore District. The scond batch of trainees finished their course in July 1955, but had to wait till 15 October to receive their Diplomas at the hands of Hon'ble Sri. M. Bhaktavatsalam, our Minister for Agriculture, who said on that occasion that he would absorb some of our trained men for work under the Community Project and National Extension Services. Thanks to his visit to our Pandamangalam Farm the road to it has been repaired by the Municipality. Six of the second batch of trainees sat for the Medallion examination in First Aid and 5 came out successful. The sixth one qualified himself for the Voucher Certificate.

The third year of this Institute began early in July 1955. 31 students joined but soon three had to leave owing to ill-health. In the course of the second term we suffered a serious loss by the sudden demise of our popular Lecturer, Mr. Irudayaraj. We place on record our deep appreciation of his unstinted services and offer our condolences to the bereaved family. His work was taken over by the Director himself. The other members of the staff are continuing their useful work and we are very grateful to them.

The Agricultural Department is helping us as before. The Veterinary Department kindly deputed one of its Assistant Surgeons to give our students a course of lectures on Animal Husbandry. The Cooperative Department also sent a Senior Inspector of Cooperative Societies to give a few lectures. We are grateful to the Dt. Agricultural Officer, the Dt. Veterinary Officer, and the Deputy Registrar of Cooperative Societies for their kind help.

Our Excursion to Madras during the September holidays and our December Camp at Annamangalam were very successful, thanks to the help given by the authorities of Loyola College, Madras, and the Block Development Officer of Perambalur. An account of our excursion and of our camp is found elsewhere in this Magazine. Of the 15 students who took part in flood-relief work in the Ramnad District 5 were from our Institute and they distinguished themselves in social work. Our weekly field work was prosecuted with enthusiasm by the three groups in charge of Kuppankulam, Valluvartheru and Vamadam under the able leadership of Fr. A. Fournier, S.J., to whom we owe a deep debt of gratitude. The adult education centre in the Thennoor Municipal School continued its work successfully throughout the year. The second anniversary of this centre was celebrated on 26 Jan., Dr. R. Sambasivan presiding.

College Societies

1955—'56

Literary and Debating Society

On July 8, 1955, S. Natarajan, V. Hons., M. Ganesan, V Hons., T. Raghavan, Post-graduate, and C. V. Joseph, IV U.C., were elected Secretaries representing the Dayscholars, Clive's Hostel, New Hostel, and Sacred Heart Hostel respectively.

On July 14, Rev. Fr. Lawrence Sundaram, S.J., Principal, Beschi College, Shembaganur, delivered the inaugural address on "The Literary Outlook." Sri. G. Varadachari, M.A., Principal, National College, presided.

On July 29, Mr. Derrick Holroyd, B.B.C. Representative in India, delivered a speech on International Broadcasting. Rev. Fr. L. M. Balam, S.J., presided.

On Aug. 1, we held the first debate under the presidentship of Sri. A. Hirudayasamy, M.A., B.L. S. Natarajan, V Hons., sponsored the motion: "Hostels must be abolished." He was opposed by E. S. Rajagopal, V Hons. After a lively debate the proposition was rejected by the House.

On Aug. 12, our Intermediate students debated the proposition: "Examinations do not bring out the true merit of students and hence they should be abolished." K. Martin, A. Sampathkumar, Jacob Zacharias, and several others participated. Sri. T. D. Felix, B.A. Hons., presided. The House rejected the motion.

On Aug. 16, Balan Vincent, III U.C., initiated a discussion on "The Politician, and not the Scientist, will save the world." Rudolph O'Brien, III B.Sc., opposed the motion. Sri. I. Arokiasamy, M.A., acted as Observer. The House passed the resolution.

On Aug. 25, there was an interesting debate on "We regret the coming of the 20th century." It was moved by E. S. Rajagopal, V Hons., and opposed by N. Jagannathan, IV Hons. After a lively debate the House rejected the motion by an overwhelming majority. Sri. R. Vaidyanathan, B.A. Hons., presided.

On October 21, our members participated in a sensational discussion—WHO IS TO BE THROWN OUT? The statesmen of the world were journeying in a storm-tossed sea. The Captain had to lighten the boat by throwing overboard the guiltiest of the statesmen. The delightful evening saw many statesmen flung mercilessly into the raging

sea. Pandit Jawaharlal Nehru alone remained. Prof. A. Hirudayasamy, M.A., B.L., who presided, justly declared Nehru the saviour of the world.

On October 25, under the presidentship of Rev. Fr. J. Hession, S.J., a symposium on UNO was held. Sri. A. Hirudayasamy, M.A., B.L., Sri. M. K. Venkataraman, M.A., Lecturer, National College, and Dr. T. V. Srinivasan, M.B.B.S., spoke on the different aspects of U.N. activities.

On October 27, the Intermediate students participated in a fantasy—"IF I WERE PRIME MINISTER." C. V. Joseph, IV U.C., presided.

On Nov. 25, a grand debate was held in the Lawley Hall. Prof. A. Hirudayasamy, M.A., B.L., tabled the motion: "The House accepts the States Reorganisation Commission's report." Prof. Thomas Srinivasan, M.A., L.T., opposed it. S. Natarajan, V Hons., E. S. Rajagopal, V Hons., G. Santhanam, Post-graduate, and M. Jagannathan, IV Hons., took part in the debate. T. Raghavan, Post-graduate, acted as Observer. The packed House rejected the motion.

On Jan. 10, Rev. Fr. T. N. Siqueira, S.J., who had attended the All-India Educational Conference in Delhi, gave his impressions of the Conference. C. V. Joseph, IV U.C., was in the chair.

On Jan. 17, a mock-parliament was held. Sri. A. Asirvatham, M.A., presided. S. Natarajan, V Hons., moved that "India should withdraw from UNO". N. Jagannathan, IV Hons., opposed it. The proposition was rejected by an overwhelming majority.

On Jan. 28, our Intermediate students discussed the proposition: "Richard's deposition is justifiable." Sri. Joseph Chinnappa, M.A., presided.

In the University Inter-collegiate zonal debate in English, N. Jagannathan, IV Hons., and R. Ramanujam, IV Hons., represented our College. N. Jagannathan came first in the contest.

N. Jagannathan, IV Hons., and E. S. Rajagopal, V Hons. took part in the oratorical contest held by the Tiruchy Rotary Club. The former secured the first prize and we retain the shield for the 5th year in succession.

Our members took part in all the student programmes of A.I.R. and acquitted themselves quite creditably.

S. NATARAJAN, V Hons.
T. RAGHAVAN, Post-graduate.
M. GANESAN, V Hons.
C. V. JOSEPH, IV U.C.

Secretaries.

தமிழ்ப் பேரவை

பேரவையின் தொடக்கவிழா 30–7–55 சனிக்கிழமை மாலை இலாலி மன்றத்தில் நடைபெற்றது. அண்ணாமலைப் பல்கலைக் கழகத் தமிழ்த் துறைத் தலைவர் டாக்டர் அ. சிதம்பரநாத செட்டியார் அவர்கள் தலைமைதாங்கி 'மேனாட்டிற் கண்ட சில' என்னும் தலைப்பின்கீழ் தொடக்கவிழா உரை நிகழ்த்தினார்கள்.

8–8–55 திங்கட்கிழமை மாலை 23-வது அறையில் மாணவர்கள் கூட்டம் நடந்தது. அவ்வமயம் சங்கைக்குரிய தனிஸ்லாஸ் அடிகள் தலைமையின்கீழ் 'இலட்சிய சமுதாயம்' எனும் பொருள்பற்றி மாணவர்கள் ஞானராசு, சாமிமுத்து, சந்தானம், டேவிட் செல்வராஜ், ஆறுமுக ரெத்தினம், அருளானந்தம், அருள்சாமி, வெங்கடாசலம், திருவேங்கடம் ஆகியோர் பேசினர். மாணவர்களின் வேண்டுகோளுக்கிணங்கிப் பேராசிரியர் இருதயராஜ் உரை நிகழ்த்தியது சிறப்பாகக் குறிப்பிடத்தக்கது.

17–8–55 புதன்கிழமை மாலை இலாலி மன்றத்தில் நடந்த சொற்போருக்குப் பேராசிரியர் இருதயசாமி ரெட்டியார் அவர்கள் தலைமை தாங்கினார். 'தமிழில் கல்லூரிப் பாடங்களைப் போதிக்கவேண்டும்' என்ற தீர்மானத்தை பேராசிரியர் இருதயராஜ் கொண்டுவந்தார். அதையொட்டி தேசீயக் கல்லூரி விரிவுரையாளர் திரு. குமாரசாமி ராஜா, மாணவர் வெங்கடாசலம் பேசினர். தீர்மானத்தை வெட்டி, விரிவுரையாளர் திரு. சம்மனசு, மாணவர்கள் சாமிமுத்து, சீதாராமன் பேசினர். பேரவை தீர்மானத்தை நிறைவேற்றியது.

22–8–55 திங்கட்கிழமை மாலை இலாலி மன்றத்தில் 'குறள் விழா'க் கொண்டாடப்பட்டது. பேராசிரியர் இருதயராஜ் தலைமையில் திருக்குறள் வீ. முனிசாமி, "திருக்குறளும் சமுதாயமும்" என்ற தலைப்பில் விழா உரை நிகழ்த்தினார்கள்.

12–10–55-ல் மாலை பேரவைத் தலைவர் ரம்போலா மஸ்கரேனஸ் அவர்கள் தலைமையில் முதல் வகுப்பு மாணவர்கள் சிறப்புக்கூட்டம் நடைபெற்றது. "நாடும் மொழியும்" என்ற தலைப்பில் மாணவர்கள் முத்தையன், கொர்னேலியஸ், வியாகுலதாஸ், அந்தோணிமுத்து, சுந்தரராஜ் ஆகியோர் பேசினர்.

4–11–55 வெள்ளி மாலை 'வீரமாமுனிவர் விழா'க் கொண்டாடப்பட்டது. அவ்வமயம் சங்கைக்குரிய பிரான்சிஸ் முருயிஸ் அடிகள் தலைமையில், பெங்களூர் மகாராணிக் கல்லூரித் தமிழ்த்துறைத் தலைவி நாகம்மாள், 'தமிழ்க் கல்வியும் வீரமாமுனிவரும்' என்ற தலைப்பில் விழா உரை நிகழ்த்தினார்கள். திரு. M. M. மாரியப்பா இசைவிருந்தளித்தார். பேரவைத் தலைவர் நன்றிகூறினார்.

8–11–55 செவ்வாய் மாலை இலாலி மன்றத்தில் பேராசிரியர் அ. இருதயராஜ் அவர்கள் மறைவு குறித்து, திரு. ஜோசப் சின்னப்பா தலைமையில் இரங்கற் கூட்டம் நடந்தது. அதுபோது திரு. ரம்போலா மஸ்கரேனஸ், மாணவர்கள் திருவேங்கடம், ஞானராசு, சீனிவாசன், சாமிமுத்து, டேவிட் செல்வராஜ் ஆகியோர் அன்னாரின் மறைவு குறித்தும் அவர் தம் தமிழ்த் தொண்டைக் குறித்தும் பேசினர். தலைவர் தம் உரைக்குப்பின் அன்னாரது

குடும்பத்திற்குப் பேரவையின் ஆழ்ந்த அனுதாபத்தைத் தெரிவித்துத் தீர்மானம் நிறைவேற்ற, அவை ஒரு நிமிட நேரம் அமைதி காட்டியது.

17–11–55 வியாழன் மாலை 23-வது அறையில் தொகைச் சொற்பொழிவுக் கூட்டம் நடைபெற்றது. மாணவர் சாமிமுத்து தலைமையில், "வேலையில்லாத் திண்டாட்டம்" எனும் பொருள்பற்றி மாணவர்கள் ஜோசப் கட்டிகாரன், ஆறுமுக ரெத்தினம், சீனிவாசன், வெங்கடாசலம், டேவிட் செல்வராஜ், பிரான்சிஸ் ராயன், கொர்னேலியஸ், தினகரன் ஆகியோர் பேசினர்.

22–11–55 செவ்வாய் மாலை சிறப்புக்கூட்டம் வித்வான் திரு. ஐயன் பெருமாள் கோனார் தலைமையில் நடந்தது. பெருஞ்சொல் விளக்கனார் அ. சரவண முதலியார் அவர்கள் 'இலக்கியமும் வாழ்க்கையும்' எனும் பொருள் குறித்து பொருட்செறிவும் கருத்தாழமும் நிறைந்த உரை நிகழ்த்தினார்கள்.

21–1–56 சனி மாலை 22-வது அறையில் தொகைச் சொற்பொழிவுக் கூட்டம் நடந்தது. அவ்வமயம் மாணவர் வெங்கடாசலம் தலைமையில் 'தமிழ் ஆட்சிமொழியாதல்' எனும் தலைப்பில் மாணவர்கள் சீதாராமன், சாமிமுத்து, பிரான்சிஸ் ராயன், சந்தானம், அருளானந்தம், கொர்னேலியஸ், டேவிட் செல்வராஜ் ஆகியோர் தமிழ் ஆட்சிமொழியாதல் வேண்டும் எனப்பேசினர்.

செயலாளர்கள்
லெ. திருவேங்கடம், IV U.C.
அ. ஞானராஜ், IV U.C.
மு. ச. ப. பகவதி, III U.C.
அ. தாவீது நாதன், II U.C.

Hindi Samajam

The activities of the Samajam began with the election of P. G. Raheja, III, U.C., and Cheriyan Ukken, II U.C. as Secretaries.

The Inaugural Address was delivered by Janab Razeenuddin, Urdu Lecturer, Jamal Mahammed College, on 27 July 1955, on "Gandhism." Mr. S. Gopalan, B.A., B.O.L., took the chair.

An ordinary meeting was held on 7–10–'55 with Mr. S. R. H. Sundaresan in the chair, when James Anthony and S. Henry, I U.C., spoke on 'Poverty and Unemployment in India.'

At an extraordinary meeting on 7–11–55 Prof. Chinnaswami Iyer, former English Lecturer of St. Joseph's College, talked on 'The Importance of Hindi.' Mr. S. Gopalan, B.A., B.O.L., took the chair.

An extraordinary meeting was held on 13 Nov. '55 under the presidentship of Sri Arokiasami, Hindi Pracharak, Hindi Prachar Sabha, Trichy. The topic was "Is war inevitable in the present generation?" G. Venkataraman, IV B.Sc. Hons., spoke for and N. Srinivasan, IV B.A. Hons., against the proposition.

At an extraordinary meeting on 20-1-'56, Sri. Rajagopal Sharma, Hindi Pandit, Bishop Heber High School Trichy, explained the relationship between Literature and Society. Mr. S. Gopalan, B.A., B.O.L., was in the chair.

P. G. RAHEJA, III U.C.
CHERIYAN UKKEN, II U.C.
Secretaries.

Malayalee Samajam

On 25 July 55, K. S. Eapen, IV U.C., and K. C. Vijayagopal, V Hons., were elected Secretaries.

The year's work was inaugurated by the well-known poet of Kerala, Mr. C. A. Joseph, on 30 July who spoke on '*Modern Trends in Malayalam Poetry*.'

On 16 August 55 a heated debate was held, with Rev. Fr. Puthenkalam, S.J., as Speaker. Joseph Mundakal (Mover), G. M. Elengical; T. K. Anthony, II U.C. and K. J. Joseph, IV Hons. spoke for the proposition:—"Nehru's Foreign policy is not in the interest of India.' The opposition was led by C. V. Joseph, IV U.C. and sustained by C. J. Roche, III U.C., P. K. Thomas, II U.C. and C. J. Thomas, III U.C. The opposition won.

On 8-10-55 a debate was held on the proposition: "The Panampilli Administration of T. C. State is a failure," G. M. Elengical, IV U.C., being the mover. Mr. K. M. Sebastian, M.A., presided. Cheriyan Ukkan, II U.C., K. T. J. Abraham, IV B.Sc. and M. E. Chacko, I U.C. supported the proposition, while C. J. Roche, III U.C. (leader of the Opposition); T. T. Augustine, IV B.Sc., T. A. James, II U.C., P. Jose, V Hons. and P. V. Mathai, IV Hons. opposed it. The resolution was passed by a small majority.

"The Dowry System is to be continued" was the topic of an interesting debate held in on 5-11-55. Mr. M. K. Jose, M.Sc., took the chair. T. T. Augustine, IV B.Sc., Joseph John, III B.Sc. T. P. Joseph, IV Hons. and T. T. Philip, I U.C., spoke for the proposition. They were defeated by the Opposition led by P. K. Thomas, II U.C. and continued by M. Joseph, IV B.Sc., K. G. George, IV B.Sc. and V. A. Jacob, II U.C.

On 13-11-55 K. V. Joseph, III Hons. moved the proposition: "A Southern State is desirable, not Aikyakerala" at a meeting presided over by Mr. C. D. Joseph, M.Sc., Abraham Arackal, III Hons., Joseph Mani, V Hons. and P. S. Luke, IV B.Sc. spoke for the proposition while Joseph John, III B.Sc., T. V. Ephrem, IV B.Sc. and A. M. Thomas, IV U.C., opposed it. The Opposition won.

That one of our members, J. Mundakal, V Hons. was second in the Inter-Collegiate Malayalam Speech competition held under the auspices of the University was for us an occasion of joy and pride.

In the last week of February we conducted a debate on "Indian Democracy" with Mr. P. M. Thomas, M.Sc., as Speaker. Abraham Arackel, Joseph John and Anthony Cheriyan argued that Indian democracy was a failure, while Joseph J. Vellathottam, II U.C., J. Zacharias, II U.C. and Anthony Varghese, IV B.Sc., opposed them.

K. S. EAPEN, IV U.C.
K. C. VIJAYAGOPAL, V Hons.
Secretaries.

Samskrita Samajam

The activities of the Samajam began with the election of P. K. Yegnanarayanan, IV U.C., and E. S. Balasubramanian, II U.C., as Secretaries.

The inaugural address was delivered on 21 July 1955 by Dr. P. S. Subramaniya Sastrigal, Ret. Professor of Annamalai University. The meeting was attended by students and members of the staff.

On 11 August K. P. Varadarajan, IV U.C., gave a talk on Kalidasa. Sri. A. Subrahmanyan, M.A., presided.

On 17 October, E. S. Balasubramanian, II U.C., and K. P. Vijayaraghavan, III U.C., spoke on *Panchathantra,* expounding the various expedients used by Karataka and Damanaka. Mr. K. Venugopalan, M.A. presided.

On 5 November, Mr. A. Subramania Iyer, M.A., spoke on Similes in the *Gita.* He pointed out how principles of philosophy were explained by apt similes drawn from nature.

At an extraordinary meeting on 18 November, under the chairmanship of the President of the Samajam, Sri. S. Ramakrishnan, M.A., gave a lecture on Rama and Viswamithra, pointing out the great intimacy between the Guru and the disciple as a model for others.

Another extraordinary meeting was held on 21 January, 1956, when Mr. A. Srinivasa Raghavan, M.A., Professor of Sanskrit, Raja's College, Pudukottah, spoke on *Bhartruhari.* He referred to the works in detail and showed how they were autobiographical.

On 25 January, Mr. R. Mahadevan, M.A., Lecturer National College Tiruchirapalli, spoke on the importance of epics in Sanskrit literature and made a fervent plea for the study of the great epics.

P. K. YEGNANARAYANAN, IV U.C.
E. S. BALASUBRAHMANYAN, II U.C.
Secretaries.

The Fine Arts Association

This is the seventh year of this Association. The office-bearers this year are:

President: Rev. Fr. A. Fournier, S.J.
Asst. President: Mr. G. Lourdusamy, M.A.
Vice-President: Messrs. S. A. Xavier, M.A. and V. Balakrishnan, B.A. Hons.
General Secretary: T. N. Seetharaman, V. Hons.
Joint Secretaries: T. Nagasundaram, P.G.
K. S. Ramakrishnan, IV Hons.
J. Zacharias, II U.C.

The Exhibition, which has become a regular annual feature of the Association, was held this year during the Deepavali holidays. It was declared open by Rev. Fr. Principal and lasted for a full week. Forty-three students contributed pencil sketches, Indian-ink drawings, water colours, photographs, and magazines. The contributions were marked by their technical excellence, especially the large-size portraits in pencil. Special mention should be made of the High School class magazines, twenty-three in number and of very high quality. Indeed each was a neat and comprehensive piece of art.

RESULTS OF THE FINE ARTS EXHIBITION—Nov. 1955

I. PENCIL

A. **Portraits:** Large size: 1st Prize: "Einstein" N. Jaganathann, IV Hons.
2nd „ "Vinoba" G. Subramanian, IV B.Sc.
Small size: 1st Prize: "T. K. C." S. Ramasubramanian, III Hons.
2nd „ "A Child" R. Krishnamoorthy, III B.Sc.

B. **Miscellaneous:** 1st Prize: Solace on Seashore" K. S. Ramakrishnan, IV Hons.

II. INDIAN INK

1st Prize: "Animals" (Spotted Deer) V. B. Shanmugam, III Hons.
2nd „ "Woodwork" (The Face of Christ) M. Moduthagam, III B.Sc.

III. WATER COLOUR

1st Prize: "The Poppy" V. B. Shanmugam. III Hons.
2nd „ "Two Peacocks" T. Pani, II U.C.

IV. PHOTOS

A. **Scenery**: 1st Prize: "Sunset on the Sea" T. S. Rajamani, IV Hons.
2nd „ "Rock Fort in a monsoon sky from the Fathers' House" R. Annamalai, III B.A.
3rd „ "Silhouette of Rock Fort" T. Nagasundaram, P.G.

B. **Art in stone**: 1st Prize: "Buddha" T. N. Seetharaman, V Hons.

C. **Animals**: 1st Prize: "Cat on a Globe" R. Annamalai, III B.A.

V. MAGAZINES

Special Prize to......................T. Nagasundaram, P. G.

VI. ALBUMS OF STAMPS

1st Prize: A Williams, III B.Sc. Hons.
2nd „ L. V. Venkataraman, III B.Sc.

The College Orchestra, introduced only last year, gave two grand concerts this year in the Lawley Hall. The first was on 27 August, '55. The second was held on 13 November, '55, under the presidentship and immediate presence of Major W. N. C. Hensman, himself an excellent pianist and singer, who spoke in appreciative terms of the performance of the Orchestra. Rev. Fr. Fournier welcomed the huge gathering which consisted of a large number of invitees.

Attempts were made to organize meetings under this Association this year. Sri. T. K. Shanmugam was invited to address the students on "Fine Arts". But, owing to unforeseen circumstances, the meeting had to be cancelled at the last moment. Though the first attempt has not been successful, it is hoped that at least in future attempts will be made to organize lectures and debates on the various aspects of Fine Art.

The purpose of the Association is not so much to entertain the students with exhibitions and concerts as to arouse and develop in them an artistic sense. And though the work we have done so far has been modest, we feel we have succeeded in attaining this object.

T. N. SEETHARAMAN, V Hons.
General Secretary.

The Botany Association

We started work on 8–7–55 with the election of S. Rajendram, K. Ratnasabapathy Pillai, A. Rajagopal, and P. Ramachandran as Secreteries for the IV, III, II and I year classes respectively.

The Inaugural Address was delivered by Captain T. V. Krishnan on 5 August 1955 on "The Role of Water in Plant Physiology." Rev. Fr. Balam took the chair.

As S. Rajendram left our College for Medical studies, we met again on 12-8-55 to elect a senior secretary. K. G. Abraham, IV B.Sc., was chosen.

At an extraordinary meeting held on 24-8-55 Sri. M. K. Jose, the chairman of the day, introduced the lecturer Sri. K. R. Venkatesan who gave a very interesting talk on "Some Aspects of Genetics and Eugenics."

"Flowers and the Animal Kingdom" was the subject of a lecture by K. G. Abraham on 4 November 1955. Appropriately our Zoology Demonstrator occupied the chair.

On 26-8-55 Sri. C. D. Joseph of the Chemistry Department of our College gave a rapid survey of "Synthesis of Plant Chemicals" at an extraordinary meeting under the chairmanship of Sri. V. Rangarajan who had recently taken the place of Sri. K. R. Venkatesan in our Department.

The Vice-President of our Association fulfilled a long-standing promise on 19-1-56 when he spoke on Some Indian Birds. That evening for the first time we had a student as chairman of an extraordinary meeting. T. Aloysius, IV B.Sc., conducted the proceedings with great dignity.

On 27-1-56 our Hall was full when Miss Jaya-Marie, B.Sc. Hons., L.T., of Holy Cross College spoke on "The Economic Importance of Algæ." Sri. V. Rangarajan was in the chair.

Sri. K. Kalyana Sundaram was kind enough to give a lecture on "Enemies from Within." The mystery of the title intrigued us till we found that the enemy was no other than the battalions of Protozoans and Vermes of various kinds that manage to enter the human body and poison the system, sometimes fatally. T. V. Ganesan, III B.Sc., was chairman.

A Symposium on "Plant Respiration" under the guidance of Rev. Fr. Balam was held on 11 Nov. 1955. Five student-members examined critically the different aspects of the subject. This was our first attempt at such a treatment of a subject and we congratulate the students who prepared their sections with great care.

Tours and Trips:—In September the B.Sc. class went in two batches to the Anaimalais and the Lower Pulneys. Top-slip and Manalur will ever remain green in our memory, as our excursion was quite successful from every point of view. In and around Trichy and as far as Narthamalai we botanised frequently in small batches. We owe much to the members of the Staff who accomapanied us on these tours and made them profitable to our study of Ecology and Taxonomy.

KALLUNGAL GEORGE ABRAHAM, IV B.Sc.
K. RATNASABATHI PILLAI, III B.Sc.
A. RAJAGOPAL, II U.C.
B. RAMACHANDRAN, I U.C.

Secretaries.

The Physics Association

On 5 July 1955, G. Venkataraman, IV Hons., and K. Y. Hussain Shah, IV B.Sc. were elected Secretaries of the senior section and C. Ashok Kumar and S. Venkateswaran of the junior section.

The Inaugural Address was delivered by Dr. N. C. Subramaniam, B.A., M.B.B.S., on 18 July 1955 on "*The Applications of Physics in Medicine.*" The meeting was presided over by Mr. P. R. Subramaniam, M.A., A.M.I.S.E.

On 28 July, 1955, E. S. Rajagopal, V Hons., delivered a lecture on "*The Age of the Universe.*" The meeting was presided over by E. S. Ramamoorthy V Hons.

The second ordinary meeting was on "*The Quest for Solar Energy.*" R. Venkatakrishnan, V Hons., spoke and S. P. Viswanathan, V Hons., presided.

On 27 August, 1955, Jose Palathingal, V Hons., spoke on "*The Theory of Relativity.*" S. S. Thangavelu, IV B.Sc., presided.

On 1 September, 1955, K. Aravamudhan, V. Hons., spoke on "*The Source of Stellar Energy.*" R. Natarajan V Hons., was in the chair.

A series of lectures on some of the useful aspects of modern Physics were delivered by IV Hons. students.

DATE	SUBJECT	SPEAKER	PRESIDENT
8-10-1955	*Television*	S. Satakopan	N. Sreenivasa Raghavan
15-10-1955	*Gamma Rays*	N. Sundara Raman	D. Nagarajan
24-10-1955	*Radar*	L. Narayana Rao	A. Sundara Rajan

An extraordinary meeting was held on 17 October 1955, when Mr. V. K. Sthanunathan, B.Sc., (Hons.), District Commercial Superintendent, Southern Railway, spoke on "*Science and Industry.*" Mr. P. Savarimuthu, M.A., took the chair.

On 18 October 1955, V. Swaminathan IV B.Sc., spoke on "*The Photo-electric Cell.*" The lecture was supplemented by G. Venkataraman, IV Hons., who gave an account of the uses of the photo-electric cell.

The ninth ordinary meeting was addressed by C. R. Krishnamoorthy, M.Sc. E. S. Rajagopal V Hons., presided. The subject was "*The Lamb-Rutherford shift in the Hydrogen Spectrum.*"

The tenth ordinary meeting was addressed by I. Susai Ratnam, V Hons. Joseph Mani, V Hons., presided. The subject was "*Atomic Energy.*"

A symposium on *Artificial Transmutation* was held under the auspices of the Association. The programme was as follows :—

DATE	SUBJECT	SPEAKER	PRESIDENT
11-1-1956	Artificial Transmutation (general)	R. Krishnan, V Hons.	E. S. Ramamoorthy, V Hons
17-1-1956	Technique of Transmutation	A. Pannirselvam, V Hons.	T. Rajagopal, V Hons.
19-1-1956	Artificial Radioactivity	R. Venkatakrishnan, V Hons.	S. P. Viswanathan, V Hons
20-1-1956	Nuclear Fission	I. Susai Ratnam, V Hons.	T. Balasubramanian, V Hons.
25-1-1956	Neutrons	K. Aravamudhan, V Hons.	M. Ambravaneswaran, V Hons.

The overwhelming success of the first one led to a second and a third symposium

The second symposium was on *Natural Radioactivity.* The programme for the second symposium was as follows.

DATE	SUBJECT	SPEAKER	PRESIDENT
27-1-1956	α-Ray Spectra	Joseph Mundakkal, V Hons.	Jose Palathingal, V Hons.
29-1-1956	β-Ray Spectra	Philomin Das, V Hons.	Joseph Mani, V Hons.
31-1-1956	γ-Ray Spectra	T. P. Narayanan, V Hons.	R. Vaidyanathan, V Hons.

The third symposium was on "*The Nucleus and its Properties.*" The programme was as follows.

DATE	SUBJECT	SPEAKER	PRESIDENT
1-2-1956	Nuclear Size	R. Natarajan, V Hons.	P. Sankaran, V Hons.
4-1-1956	Nuclear Spin and magnetic moments	R. Vaidynathan, V Hons.	E. S. Ramamoorthy, V Hons.
6-1-1956	Nuclear Stability and Intranuclear Forces	S. N. Thirumalaiswamy V Hons.	E. S. Rajagopal, V Hons.

Our Junior Association held a meeting on 10 November 1955 when M. Somasundaram, II U.C., spoke on "*The History of Physics*" and S. Venkateswaran, II U.C., presided.

As regards the annual prize contests under the auspices of the Association, while the B.Sc. and Intermediate students had the usual essay competitions, the Honours and P. G. students had extempore speeches.

G. VENKATARAMAN, IV Hons.
K. Y. HUSSAIN SHAH, IV B.Sc.
C. ASHOK KUMAR, II U.C.
S. VENKATESWARAN, I U.C.
Secretaries.

The Chemistry Association

N. S. S. Rajan, IV B.Sc., and V. Rathnasabapathy, III B.Sc., were elected Secretaries for this year.

The Inaugural Address was delivered by Dr. P. A. Menon, M.B.B.S., F.R.C.S., District Medical Officer of the Railway Hospital, Golden Rock, on 5 August '55, on "Chemistry in Medicine." Prof. A. C. Joseph, M.A., presided.

On 13 August, with S. Ramadurai, IV B.Sc., in the chair, S. Subramanian, IV B.Sc., spoke on 'Vitamins.'

On 20 August, P. S. Gopalan, IV B.Sc., spoke on 'Fuels,' with V. Hariharan, IV B.Sc., in the chair.

On 1 October, S. Ramadurai, IV B.Sc., delivered a lecture on 'Poisons and their Remedies.' S. Rangarajan, IV B.Sc., took the chair.

On 8 October, V. Krishnan, IV B.Sc., spoke on 'Our Educational Tour during the Michaelmas Vacation. U. Harinarayana Rao, IV B.Sc., presided.

On 18 October, R. Seshadri, IV B.Sc., delivered a lecture on 'Artificial Fibres.' M. V. Adityan, IV B.Sc., took the chair.

On 7 November, S. Rangarajan, IV B.Sc., delivered a lecture on 'Inks.' B. V. Venkatesan, IV B.Sc., took the chair.

On 21 November, T. R. Krishnamachari, IV B.Sc., spoke on 'Isotopes.' Mr. V. Nagarajan, B.Sc., of the Chemistry Department presided.

The subject taken for a debate on 19 January '56 was 'Recent scientific advances tend to be more destructive than constructive.' The proposition was sponsored by S. Subramanian, IV B.Sc., while T. R. Krishnamachari, IV B.Sc., opposed it. Prof. A. C. Joseph, M.A., presided. The House gave its verdict against the motion. The President congratulated the House on the high level of the debate.

On 28 January, there was another debate under the presidentship of Mr. C. K. Ramakrishnan, M.A. T. R. Krishnamachari, IV B.Sc., moved the proposition: "The introduction of the regional languages as the medium of instruction will be detrimental to the growth of Science." The Opposition was led by V. M. Sivasubramanian, IV B.Sc. The motion was lost by a narrow majority.

Our major educational tour this year was to Mandya, Mysore, Bhadravathi, and Bangalore under the leadership of Mr. Pushparaj, B.Sc., Hons., and Mr. V. Nagarajan, B.Sc. We also visited the Vanaspathy factory at Pudur under the guidance of Mr. V. Nagarajan, B.Sc.

N. S. S. Rajan
V. Rathnasabapathy
Secretaries.

The Mathematics Association

The activities of this Association started with the election of N. Jagannathan, IV Hons., P. Sambannan, IV B.A., and P. S. Viswanathan, II U.C., as Secretaries.

The Inaugural Address was delivered by Dr. K. Rangaswami, Iyer, M.A., Ph.D., Professor of Mathematics, Annamalai University, on 6 Aug. '55. He spoke on 'Configuration of Spaces.' Mr. S. Surianarayana Iyer, M.A., presided.

On 13 Aug. '55, E. S. Rajagopal, V B.Sc., Hons., spoke about "Magic Squares." S. S. Vaidyanathan, V Hons., presided.

"Mathematical Paradoxes" was the subject of a talk given by R. Krishnan, IV Hons., on 17 Aug. '55. T. Raghavan, V Hons., took the chair.

R. Govindasami Pillai, III Hons., spoke about "Mathematics and the Heavens" on Aug. 23, 1955 under the presidentship of K. S. Ramakrishnan, IV Hons. The talk was supplemented by N. Jagannathan, IV Hons.

On 5 Oct. '55, N. Sivarama Krishnan, IV Hons., spoke on the "Fourth Dimension." V. Varadarajan of the same class took the chair.

An interesting meeting took place on 8 Oct. '55 when S. K. Chandrasekaran, II U.C., spoke on "Counting Infinites." P. K. Sundara Rajan, III Hons., was in the chair.

On Oct. 18 '55, N. Sankarasubramanian, Post-graduate, gave a lecture on Eclipses. N. Sundaresan, IV Hons., presided.

Under the presidentship of R. Totadri, III Hons., on 5 Nov. '55. P. V. Swaminathan, III Hons., gave a talk on 'Mathematical Recreations.'

On 17 Nov. '55, Mr. K. M. Sebastian, M.A., puzzled a packed audience with his "Mathematical Puzzles." Mr. R. Vaidyanathan, B.A. Hons., presided.

For the first time our Association conducted a symposium on "Our Solar System."

The first talk was delivered by K. S. Ramakrishnan, IV Hons., on Jan. 12 '56, on 'The Major Planets.' The president of the meeting, R. Krishnan, IV Hons., tried to conduct the meeting in Tamil.

The second talk was given by B. R. Srinivasan, III Hons., on 16 Jan. '56, on "Mars and Saturn." N. Jagannathan, IV Hons., presided.

We conducted a written Quiz programme for Intermediate students. As many as 270 participated.

N. JAGANNATHAN, IV Hons.
P. SAMBANNAN, IV B.A.
P. S. VISWANATHAN. II U.C.
Secretaries.

The History and Economics Association

The activities of the Association commenced with a business meeting at which S. N. Raghavan, V Hons. and P. K. Thomas, IV Hons. were elected Joint Secretaries for the year.

The Inaugural Address was delivered on 6 August, 1955, by Prof. S. V. Aiyar, M.A., Head of the Dept. of Economics, Annamalai University. Speaking on "The Socialistic Pattern of Society" he expressed himself strongly against Socialism and the indefinite extension of public control. Rev. Fr. Adisayam, S.J., presiding over the function, stressed the importance of spiritual and moral values in every economic activity.

On 22 August, the "Socialistic Pattern of Society" was again the subject of a lucid analysis by Mr. T. Srinivasaraghavan, M.A., Lecturer, National College, Tiruchirapalli. The speaker explained that "socialistic pattern" seemed to be only an amendment of capitalism and expressed the view that the efficiency of any enterprise, either public or private, depended on the character of the personnel administering it. Mr. M. Arokiaswamy, M.A., who presided, observed that in any proper scheme of social reconstruction due recognition should be given to the place of private enterprise.

The suitability of our regional languages to replace English as the medium of instruction in our universities was the topic of discussion on 27 October, when C. V. Joseph, IV U.C. moved the resolution and S. Natarajan, V Hons. opposed it. J. Oleckan, V Hons presided. The motion was carried.

A condolence meeting was convened on 8 November to mourn the sudden death of our beloved lecturer, Mr. Irudayaraj, M.A. Prof. A. Hirudayaswamy, M.A., B.L., gave a very touching account of Mr. Irudayaraj's life as a lecturer. It was resolved at the meeting that a memorial fund be raised to institute a scholarship in honour of his beloved memory. A condolence resolution, moved from the chair by Rev. Fr. Adisayam, S.J., was passed, all standing in silence for a minute.

On 14 November a debate was held on the report of the States Reorganisation Commission. G. Santhanam, P.G. moved the resolution that "the general consensus of opinion is in favour of the main recommendations of the Commission." David Selvaraj, of IV U.C., opposed the motion. S. Natarajan, V Hons., presided. The motion was carried.

On 21 November, Mr. Horton H. Heath, Asst. Cultural Officer, USIS, Madras, gave a lecture on "The United States in World Economy." He stressed the significance of American foreign aid to underdeveloped countries. Rev. Fr. Adisayam, S.J., presided over the function.

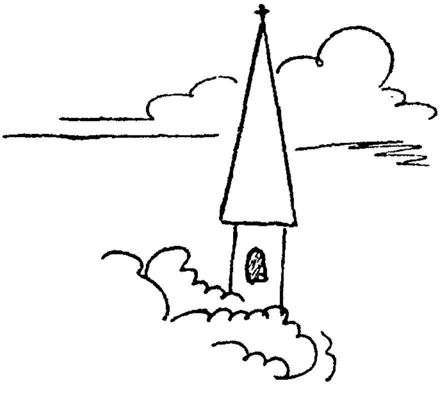
In our annual Inter-Collegiate Staff-students debate on 30 January, 1956, Mr. A. Hirudayaswamy, M.A., B.L., moved the resolution that "the

proposed reorganisation of our University education is undesirable" Prof. M. S. Srinivasa Sarma, M.A., of Jamal Mohammed College, presided. Mr. Joseph Chinnappa, M.A., led the Opposition. Mr. L. S. Parthasarathy, M.A. of National College and Mr. R. Vaidyanathan, M.A. of our College also took part. The motion was carried.

What highlighted our activities this year was the "Popular Lecture Series."

	Names :	Topics :
1.	S. Natarajan, V Hons.	Afro-Asian Solidarity.
2.	T. N. Seetharaman, V Hons.	Panch Shila.
3.	L. Arulswamy, V Hons.	Socialistic Pattern of Society.
4.	S. N. Raghavan, V Hons.	India in World Affairs.
5.	K. Ramachandran, P.G.	The Reorganisation of States.
6.	G. Britto, V Hons.	The Role of the Private Sector in the 5-Year Plans.

S. N. Raghavan, V Hons.
P. K. Thomas, IV Hons.
Joint Secretaries.



Exchanges 1955-'56

ST. ALBERT'S COLLEGE ANNUAL, ERNAKULAM.
AGURCHAND MANMULL JAIN COLLEGE MAGAZINE. MADRAS.
ALAGAPPA CHETTIAR COLLEGE MAGAZINE, KARAIKUDI.
THE ALOYSIAN, GALLE, CEYLON.
ST. ALOYSIUS' COLLEGE MAGAZINE, MALTA.
ST. ALOYSIUS' COLLEGE ANNUAL, MANGALORE.
ST. ALOYSIUS' COLLEGE HIGH SCHOOL ANNUAL, MANGALORE.
AMERICAN COLLEGE MAGAZINE, MADURA.
ANDHRA CHRISTIAN COLLEGE MAGAZINE, GUNTUR.
ASSUMPTION COLLEGE MAGAZINE, CHANGANACHERY.
ST. BENEDICT'S COLLEGE MAGAZINE, COLOMBO.
BISHOP HEBER SCHOOL MAGAZINE, TRICHINOPOLY.
BLUE AND WHITE, ST. JOSEPH'S, COLOMBO.
BLUE AND WHITE, ST. JOSEPH'S COLLEGE ANNUAL, BANGALORE.
CARITAS, ST. JOSEPH'S SEMINARY, ALWAYE.
CARMELA, ST. AGNES' COLLEGE, MANGALORE.
COIMBATORE GOVT. ARTS COLLEGE MAGAZINE.
DE BRITTO HIGH SCHOOL MAGAZINE, DEVAKOTTAI.
ENGINEERING COLLEGE MAGAZINE, MADRAS.
EXCELSIOR, ST. BERCHMANS' COLLEGE, CHANGANACHERY.
FATIMA COLLEGE MAGAZINE, QUILON.
FINDLAY HIGH SCHOOL MAGAZINE, MANNARGUDY.
GOVERNMENT ARTS COLLEGE MAGAZINE, MADRAS.
GOVERNMENT BRENNEN COLLEGE MAGAZINE, TELLICHERRY.
GOVERNMENT COLLEGE MISCELLANY, MANALORE.
HINDU COLLEGE MAGAZINE, MASULIPATAM.
ST. JOHN'S COLLEGE ANNUAL, PALAMCOTTAH.
ST. JOSEPH'S INDIAN HIGH SCHOOL ANNUAL, BANGALORE.
KERALA VARMA COLLEGE MISCELLANY, TRICHUR.
KUMBAKONAM COLLEGE MAGAZINE.
LADY WILLINGDON COLLEGE MAGAZINE, MADRAS.
LAW COLLEGE MAGAZINE, MADRAS.
LEO XIII HIGH SCHOOL ANNUAL, ALLEPPEY.
LITTLE FLOWER SCHOOL ANNUAL, SALEM.
LOYOLA COLLEGE ANNUAL, MADRAS.
MADRAS CHRISTIAN COLLEGE MAGAZINE, TAMBARAM.
MADRAS MEDICAL COLLEGE MAGAZINE.
MADRAS VETERINARY COLLEGE MAGAZINE.
MADURA COLLEGE MAGAZINE, MADURA.
MARIAN VOICE, ST. MARY'S COLLEGE, TRICHUR.
MAR IVANIOS COLLEGE ANNUAL, TRIVANDRUM.
M. D. T. HINDU COLLEGE MAGAZINE, TINNEVELLY.

ST. MARY'S HIGH SCHOOL ANNUAL, DINDIGUL.
ST. MARY'S COLLEGE MAGAZINE, TUTICORIN.
ST. MARY'S HIGH SCHOOL MAGAZINE, MAZGAON, BOMBAY.
ST. MICHAEL'S HIGH SCHOOL MAGAZINE, CANNANORE.
METKEM JOURNAL, TRICHY.
MRS. A. V. N COLLEGE MAGAZINE, VIZAGAPATAM.
MUNGRET ANNUAL, MUNGRET COLLEGE, LIMERICK, IRELAND.
NEW COLLEGE MAGAZINE, MADRAS.
NORTH POINT ANNUAL, DARJEELING.
N. S. S. HINDU COLLEGE MAGAZINE, CHANGANACHERY.
PACHAIYAPPA'S COLLEGE MAGAZINE, MADRAS.
PASUMALAI PROGRESS, PASUMALAI.
PAULIAN, SAINT PAUL'S, SERAMBAN, MALAYA.
P. S. G. MAGAZINE, PEELAMEDU, COIMBATORE.
PRESIDENCY COLLEGE MAGAZINE, MADRAS.
PROVIDENCE COLLEGE MAGAZINE, KOZHIKODE.
THE PAULITE, ST. PAUL'S HIGH SCHOOL, BELGAUM.
PUDUKOTTAH COLLEGE MAGAZINE.
QUEEN MARY'S COLLEGE MAGAZINE, MADRAS.
R. D. M. COLLEGE MAGAZINE, SIVAGANGA.
SALEM COLLEGE MAGAZINE, SALEM.
SACRED HEART COLLEGE ANNUAL, THEVARA.
SCOTTISH CHURCH COLLEGE MAGAZINE, CALCUTTA.
SENTHIKUMARA NADAR COLLEGE MAGAZINE, VIRUDHUNAGAR.
SIR C. R. REDDY COLLEGE MAGAZINE, ELURU.
SOPHIA COLLEGE MAGAZINE, BOMBAY.
STANLEY MEDICAL COLLEGE MAGAZINE, MADRAS.
STONYHURST MAGAZINE, BLACKBURN, ENGLAND.
ST. PHILOMENA'S COLLEGE ANNUAL, MYSORE.
SOUTHERN FOREST RANGERS' COLLEGE MAGAZINE, COIMBATORE.
TECH. MAG. SIR ARTHUR HOPE ENGINEERING COLLEGE, COIMBATORE.
ST. TERESA'S COLLEGE MAGAZINE, ERNAKULAM.
THIAGARAJAR COLLEGE MAGAZINE, MADURAI.
ST. THOMAS COLLEGE MAGAZINE, TRICHUR.
UNION CHRISTIAN COLLEGE MAGAZINE, ALWAYE.
UNITAS, ST. JOSEPH'S SEMINARY, KANKANADY, MANGALORE.
VICTORIA COLLEGE MAGAZINE, PALGHAT.
VIVEKANANDA COLLEGE MAGAZINE, MYLAPORE.
VOORHEES COLLEGE MAGAZINE, VELLORE.
WOMEN'S CHRISTIAN COLLEGE MAGAZINE, MADRAS.
ST. XAVIER'S COLLEGE MAGAZINE, BOMBAY.
ST. XAVIER'S COLLEGE MAGAZINE, CALCUTTA.
ST. XAVIER'S COLLEGE MAGAZINE, PALAMCOTTAH.
போதனு விஷயப் பூங்கொத்து, R. C. TRAINING SCHOOL, TRICHINOPOLY.

Editor & Publisher :
REV. FR. T. N. SIQUEIRA, S.J.,
St. Joseph's College, Teppakulam P.O.,
Trichinopoly

and

Printer :
REV. FR. K. A. LOURDES, Superintendent,
St. Joseph's Industrial School Press,
Trichinopoly-H.O.—1956

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